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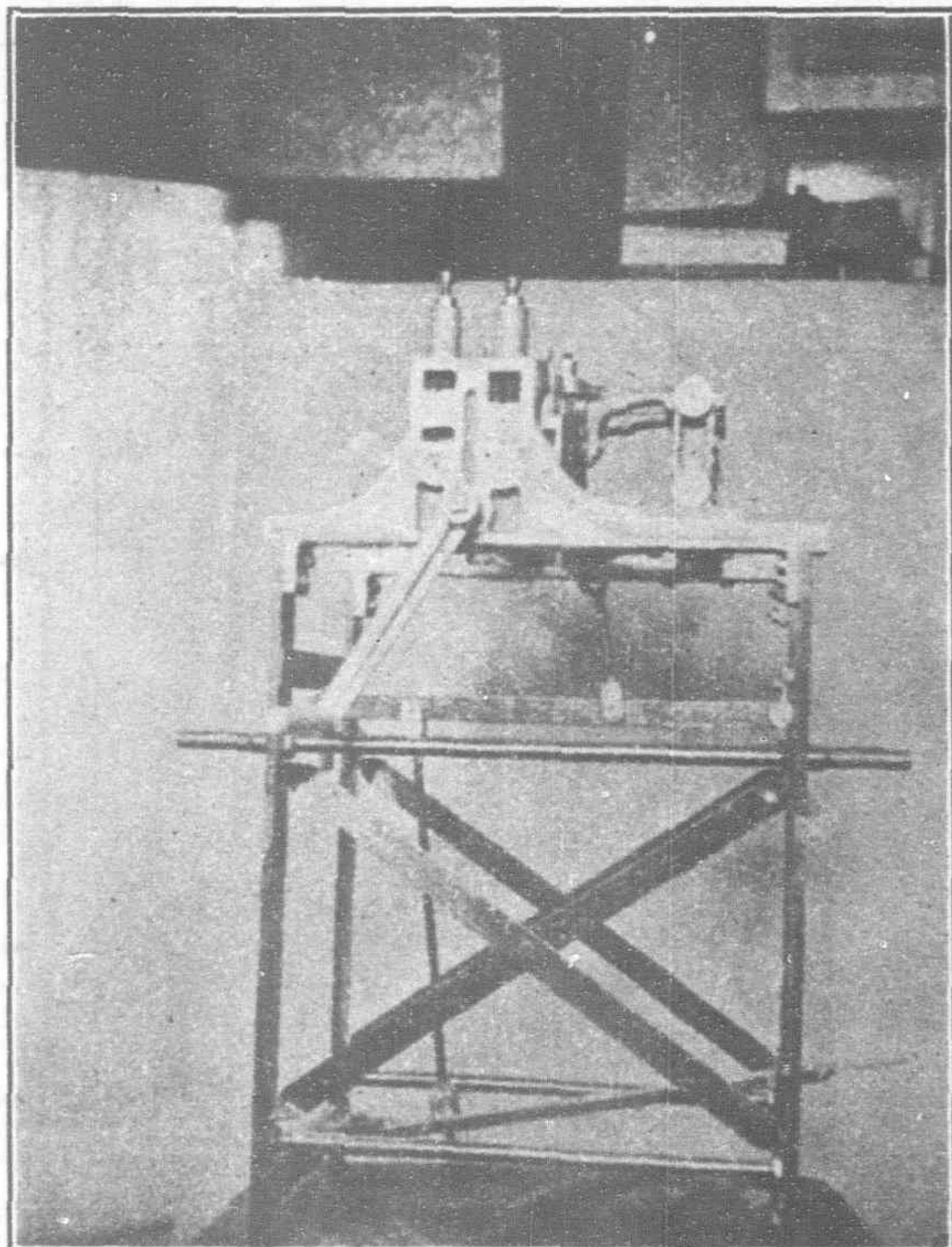
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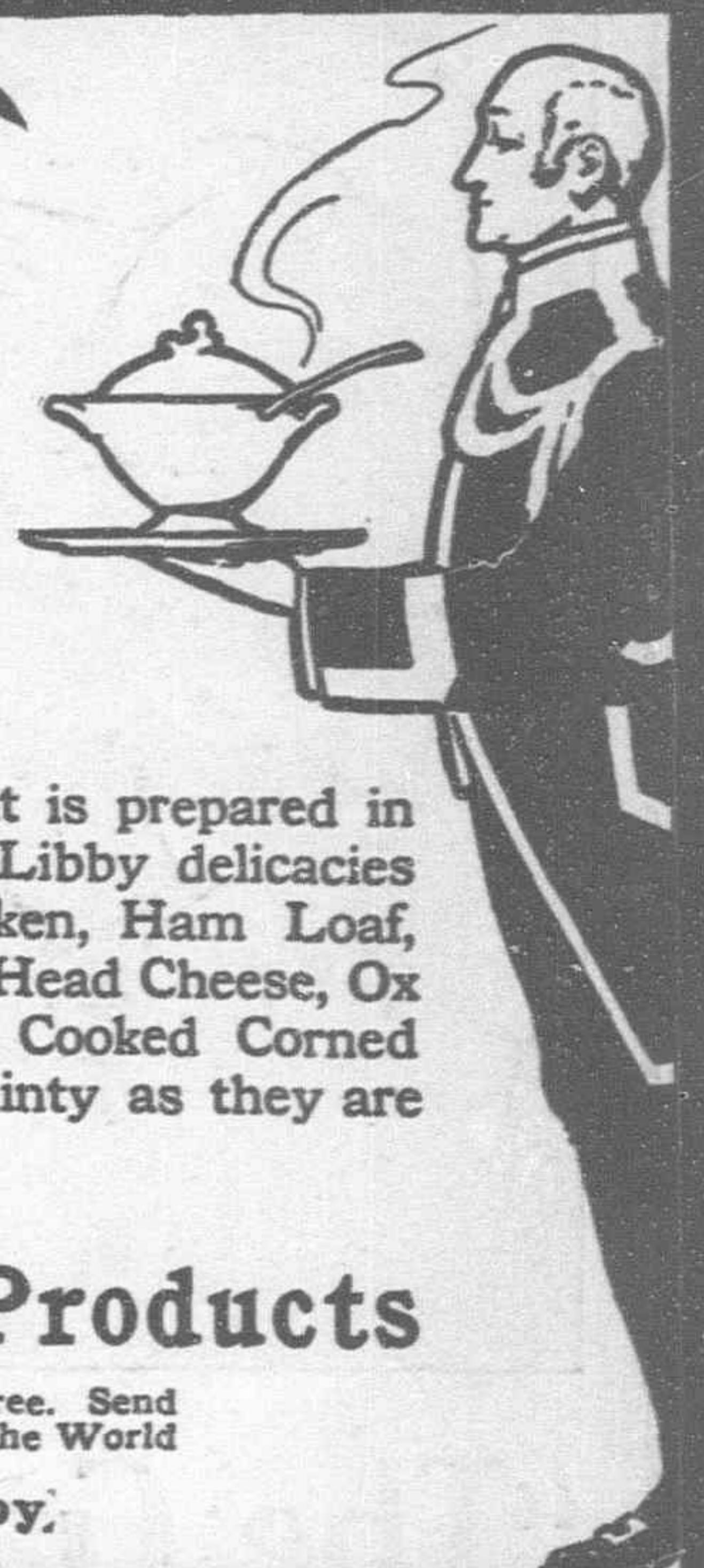
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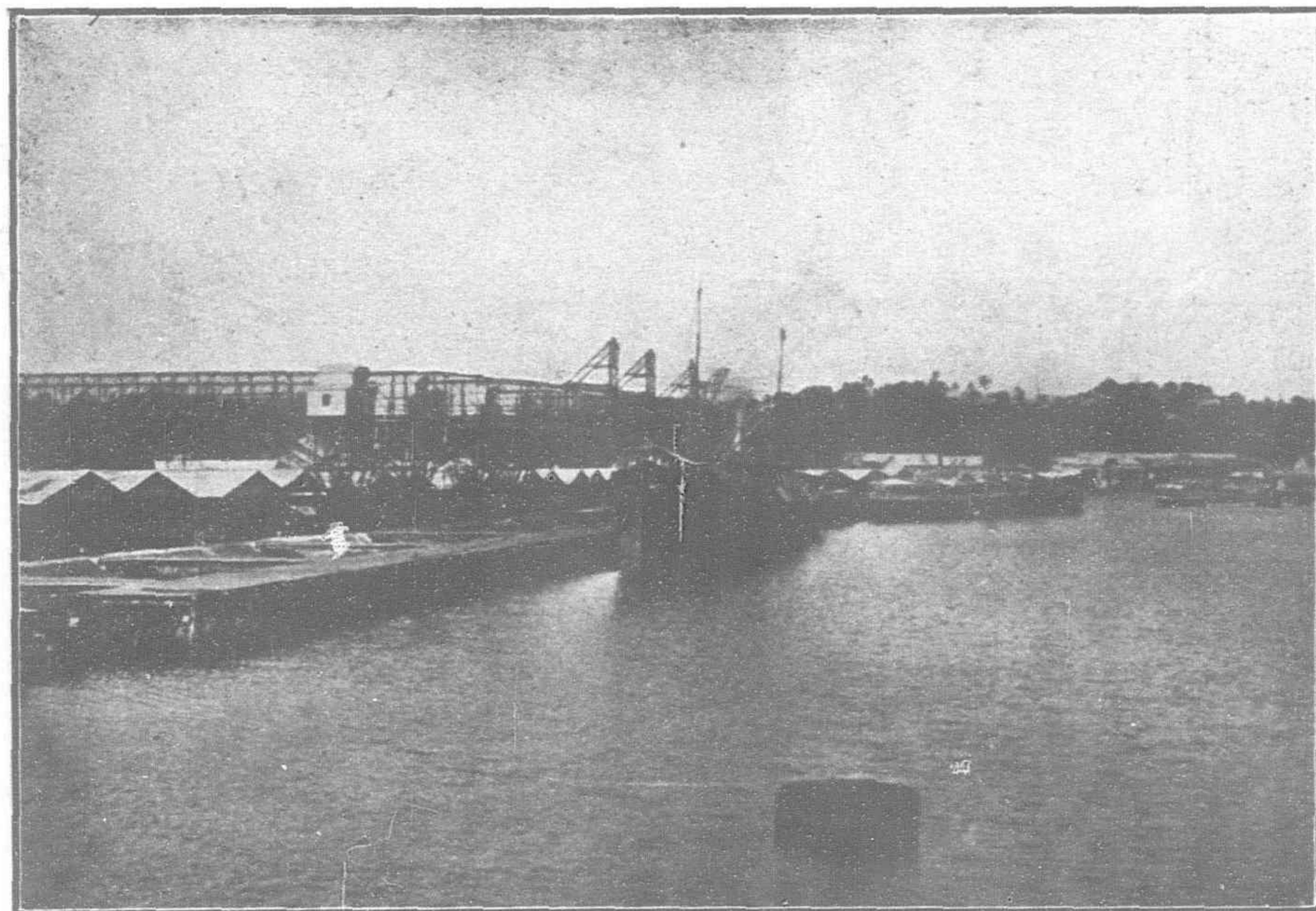
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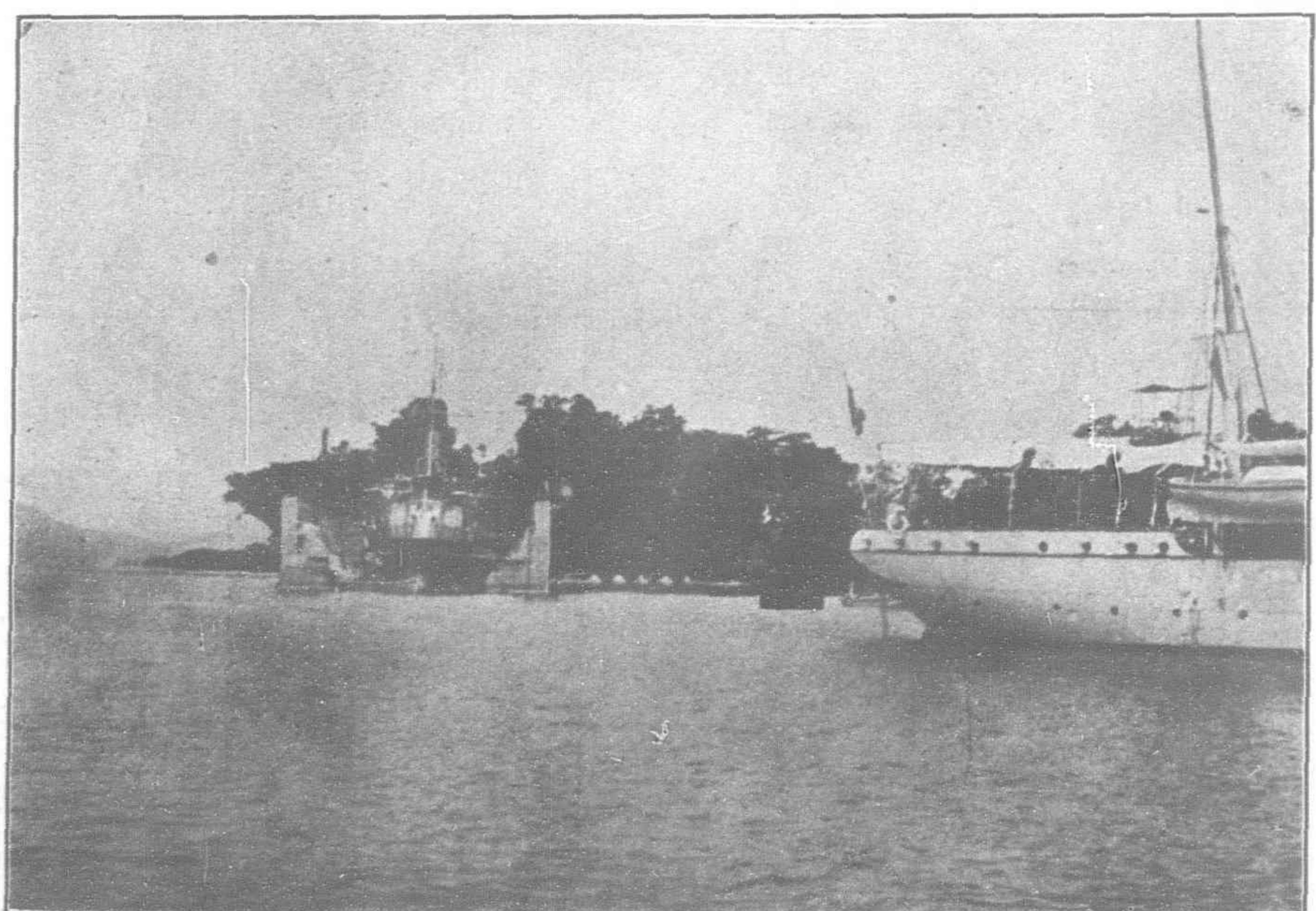
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The Company has SIX GRANITE DOCKS and TWO PATENT SLIPS of the following dimensions:—

NAME OF DOCK OR SLIP	LENGTH ON KEEL BLOCKS	BREADTH AT ENTRANCE	DEPTH OVER SILL	RISE OF TIDE	
			AT ORDINARY SPRING TIDES	SPRINGS	NEAPS
KOWLOON					
No. 1 Dock, Kowloon	576	{ 86 feet top 70 ft. bottom }	30'	7' 6"	3
No. 2 Dock, Kowloon	371	74'	18' 6"	7' 6"	—
No. 3 Dock, Kowloon	264	49' 3"	14'	7' 6"	—
Patent Slip, No. 1, Kowloon	240	60'	14'	7' 6"	—
Patent Slip, No. 2, Kowloon	220	60'	12'	7' 6"	—
TAI-KOK-TSUI					
Cosmopolitan Dock	466	85' 6"	20'	7' 6"	—
ABERDEEN					
Hope Dock	430	84'	23'	7' 6"	—
Lamont Dock	333	64'	16'	7' 6"	—

The DOCKS are fitted with every appliance in the way of Caissons, powerful Centrifugal Steam Pumps, etc., which enable them to be pumped out in three hours.

WORKSHOPS.—The extensive workshops on the premises at Kowloon, Cosmopolitan, and Aberdeen Docks possess every facility and appliance necessary for the repairs of ships and steam machinery. The Engineers' Shops are supplied with a large plant of the latest types of tools in the way of Lathes, Planing, Milling and Screwing Machines, Electric Cranes, etc., etc., and capable of executing the largest class of work with despatch. The Shipwrights' Department has attached to it a Steam Sawmill with Circular, Vertical and Band Saws, and also a complete plant of Wood-working Machinery of the most modern and improved type. The Blacksmiths' Shops are equally well furnished with a complete supply of powerful Steam Hammers, Cranes, etc., capable of forging stern posts and crank and straight shafting of the largest size.

Powerful Lifting Shears with steam purchase at two of their Establishments stand on a solid granite seawall, alongside which vessels can lie drawing 24 feet of water, and take in or out boilers etc. The Shears at Kowloon are capable of lifting 70 tons.

The Company is prepared to tender for the construction of new vessels in either steel, iron or wood, having already built about 400 of varying sizes up to 3,000 tons; also to execute all kinds of ship work at lower rates and with greater despatch than any establishment in the East. Every department is under the close supervision of experienced European foremen.

SHIP-YARD is fully equipped with modern plant, including hydraulic flanging and bending machines, electrically driven rolls punching, shearing, angle bevelling, joggling and planing machines, capable of dealing with the heaviest class of work.

BOILER-MAKERS' DEPARTMENT.—The Company, in addition to executing repairs, is prepared to tender for new boilers to steamships for the construction of which it possesses special facilities, including powerful punching and shearing machines, hydraulic riveters, etc.

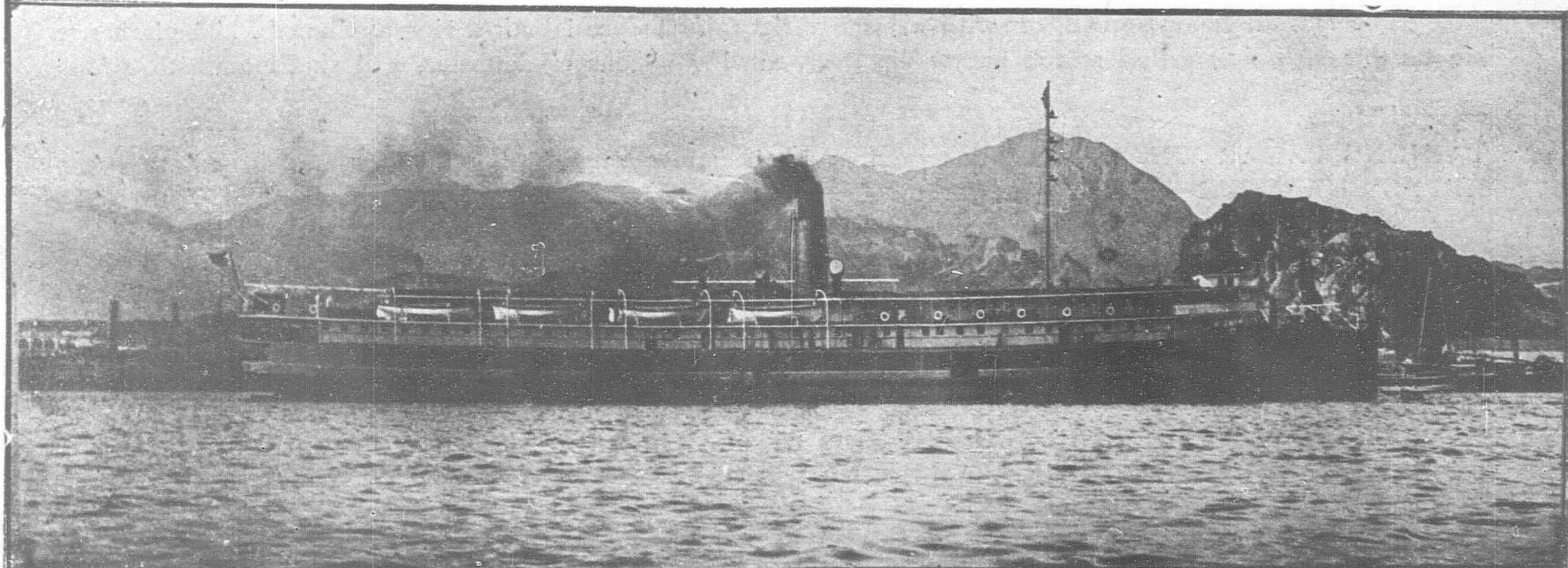
FOUNDRY.—The Foundry is fitted with a large, powerful Steam Crane and the Cupolas are capable of casting up to 100 tons. The Company is prepared to supply the very best Iron and Brass Castings of all descriptions upon the shortest notice.

GALVANIZING PLANT of the most modern type by electrical deposit has been put up at the Kowloon Establishment, which is capable of doing the largest class of work.

STORES.—The Company's Godowns contain large and well-selected stocks of all material and fittings requisite in shipbuilding, engine-room outfit furnishings, and ships' stores of all descriptions supplied at tariff rates.

For Further Particulars apply at the Offices of the Company, Queen's Buildings, No. 1, New Praya, Hongkong, or to

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GRAVING DOCKS

	LENGTH	WIDTH AT ENTRANCE	DEPTH OF WATER ON SILL HIGHEST SPRING TIDES
VICTORIA GRAVING DOCK	450'	65'	19'
ALBERT GRAVING DOCK	480'	60'	20'
NO. 1. GRAVING DOCK	415'	42'	15'-6"
NO. 2. GRAVING DOCK	444'	65'	19'
NEW DOCK (In Preparation)	860'	100'	35'

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The machine shops are fitted with a large variety of modern labour-saving appliances. The lathes are capable of boring cylinders 100 inches diameter, turning pistons 9' diameter, and shafting up to 45'.

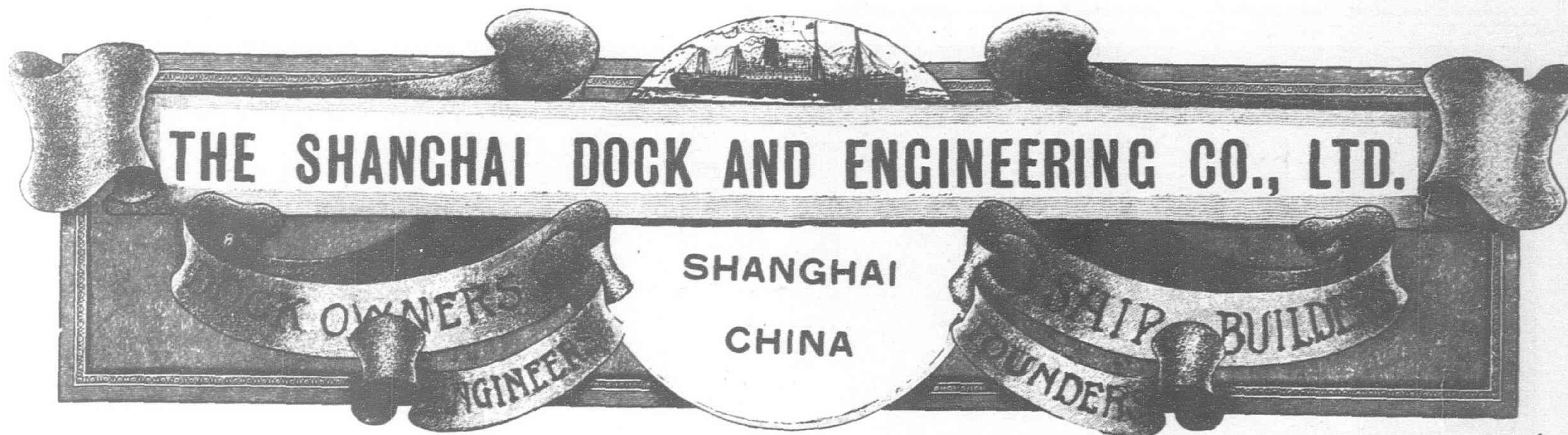
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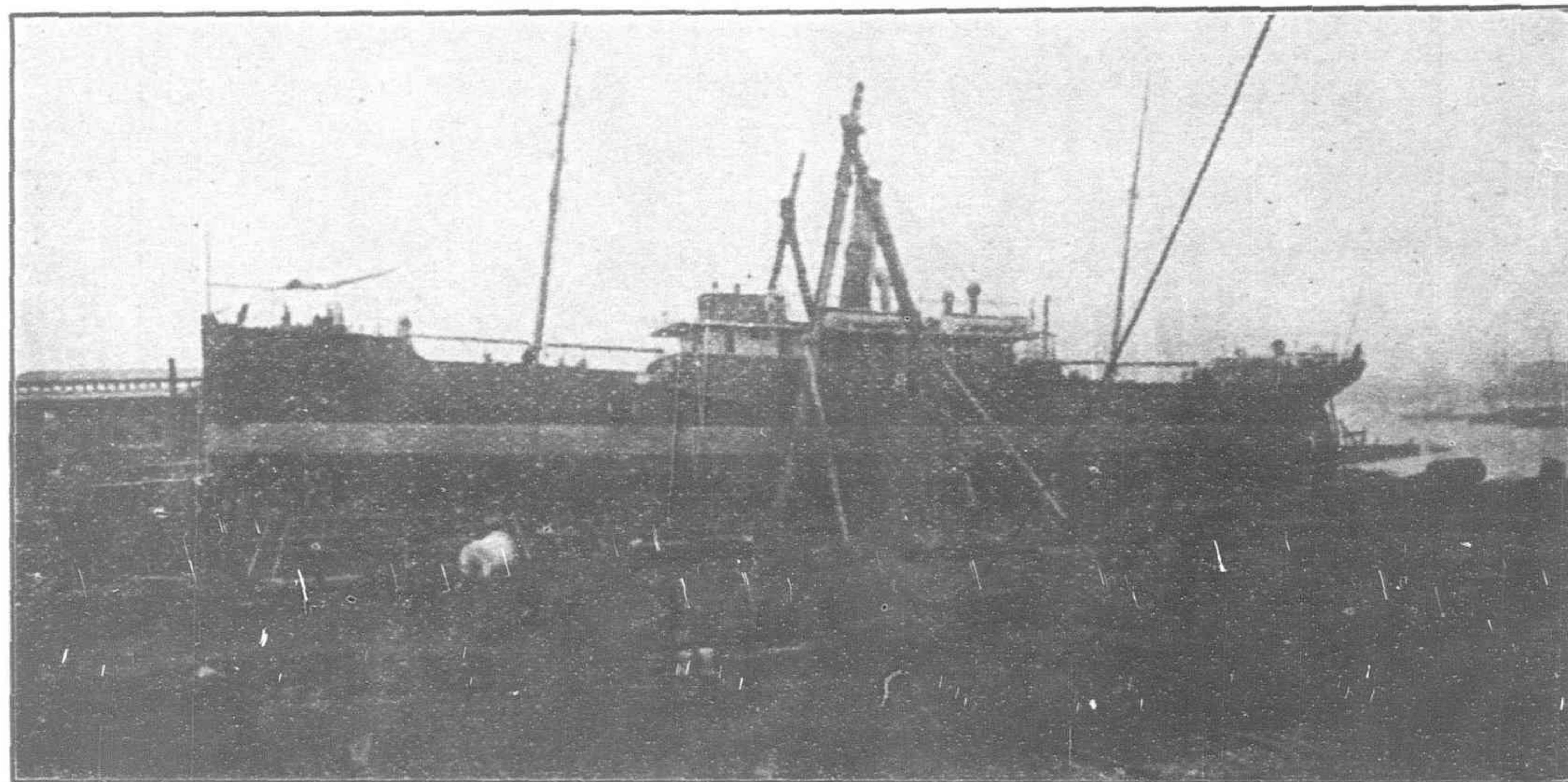
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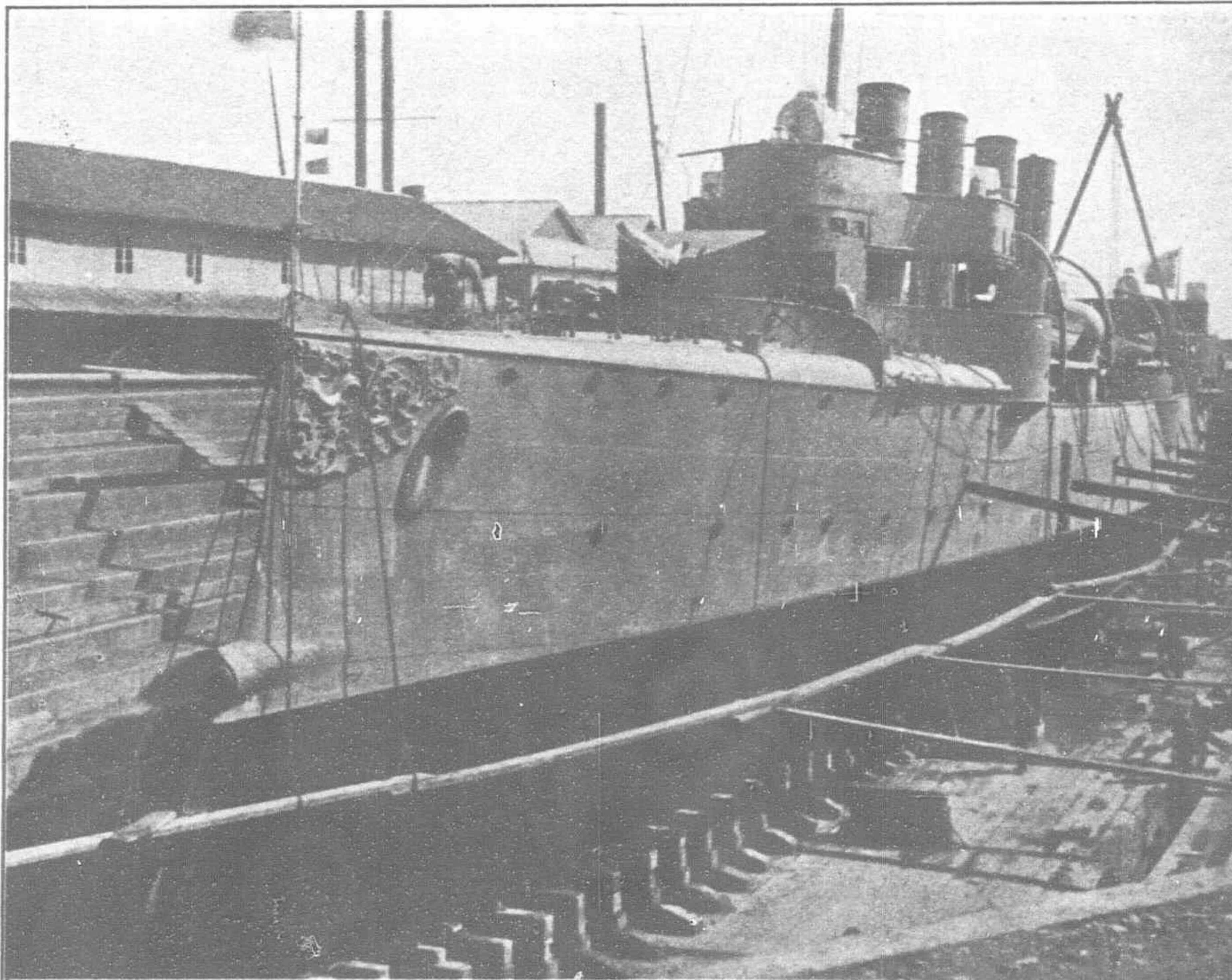
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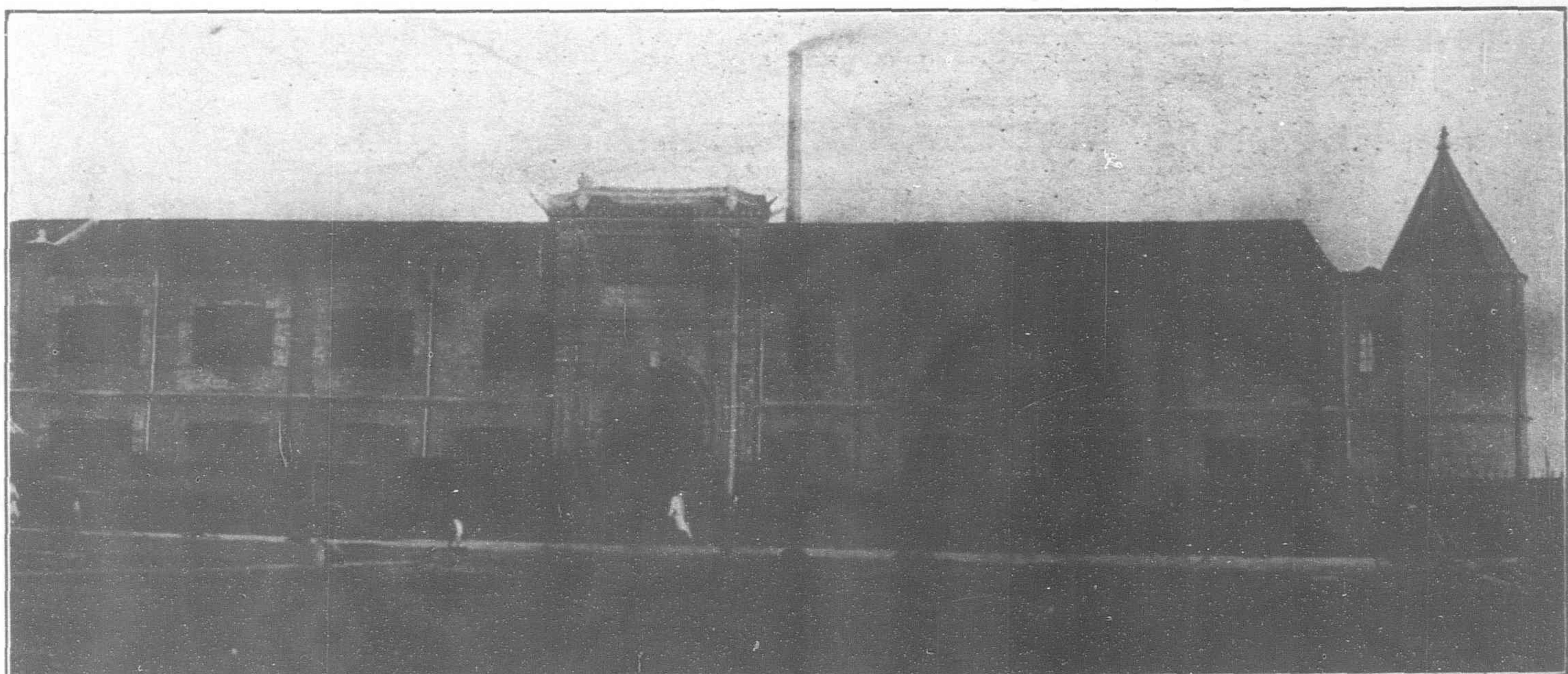
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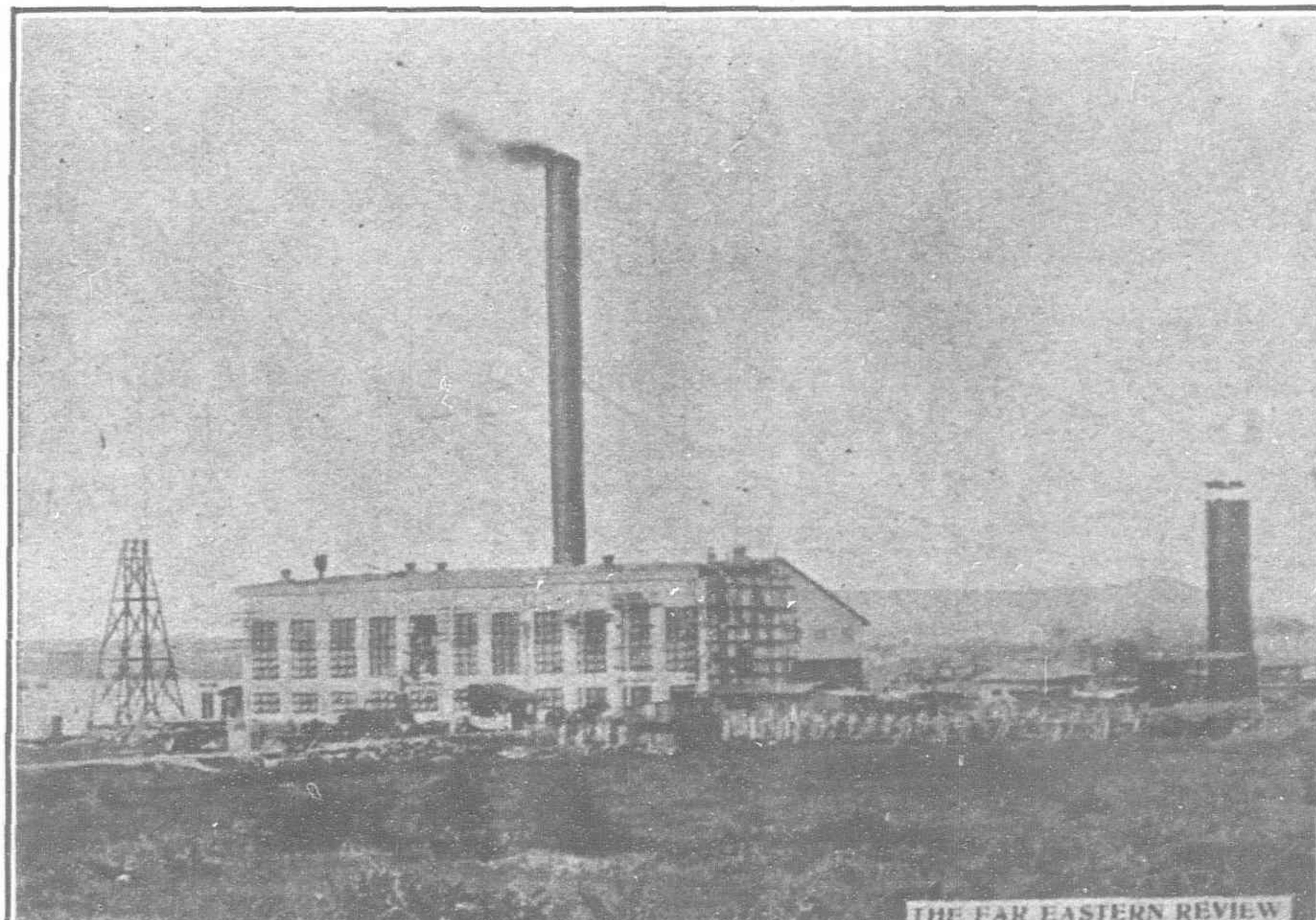
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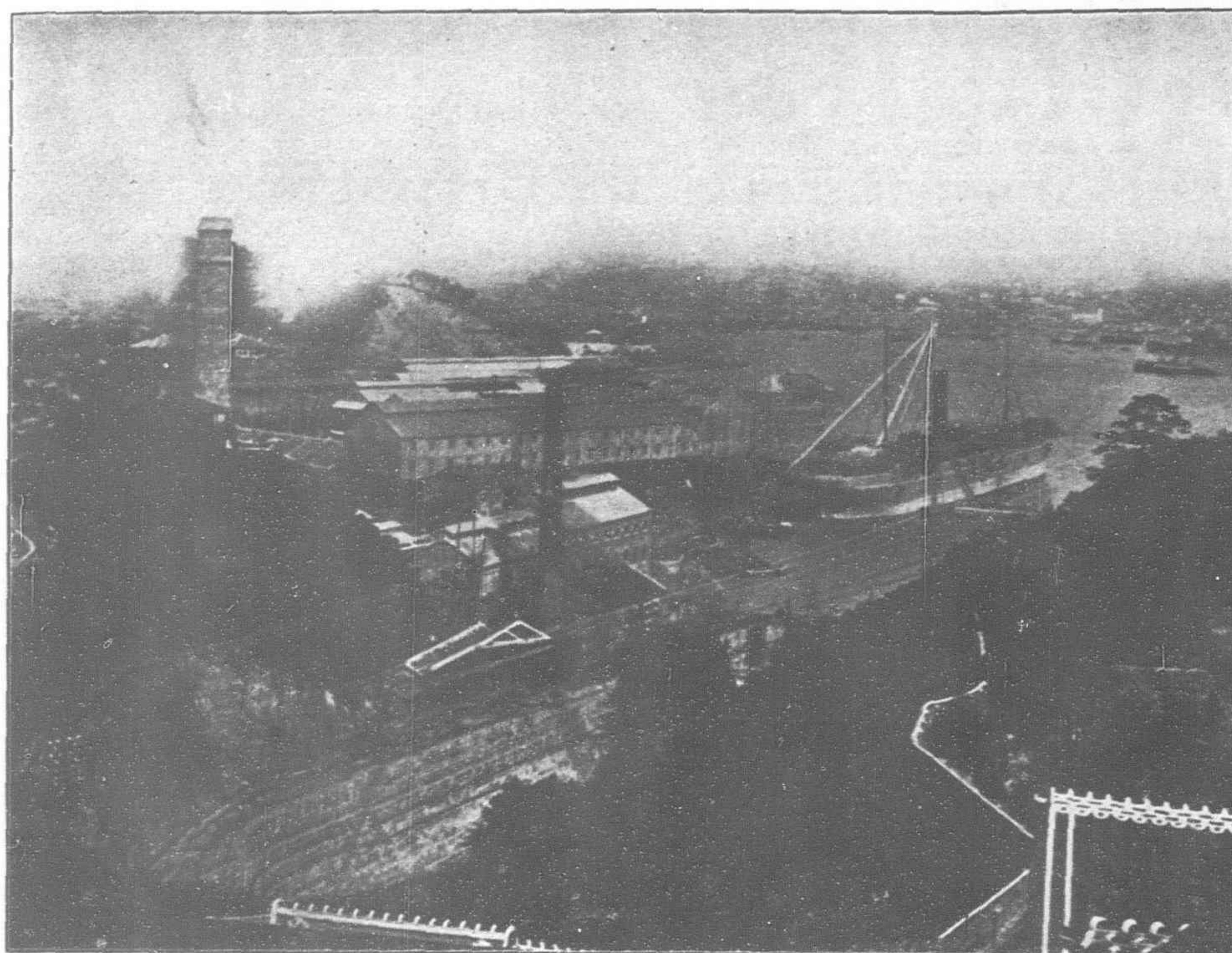
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LENGTH ON BLOCKS	360 "
WIDTH OF ENTRANCE ON TOP . . .	66 "
" " " " BOTTOM	53 "
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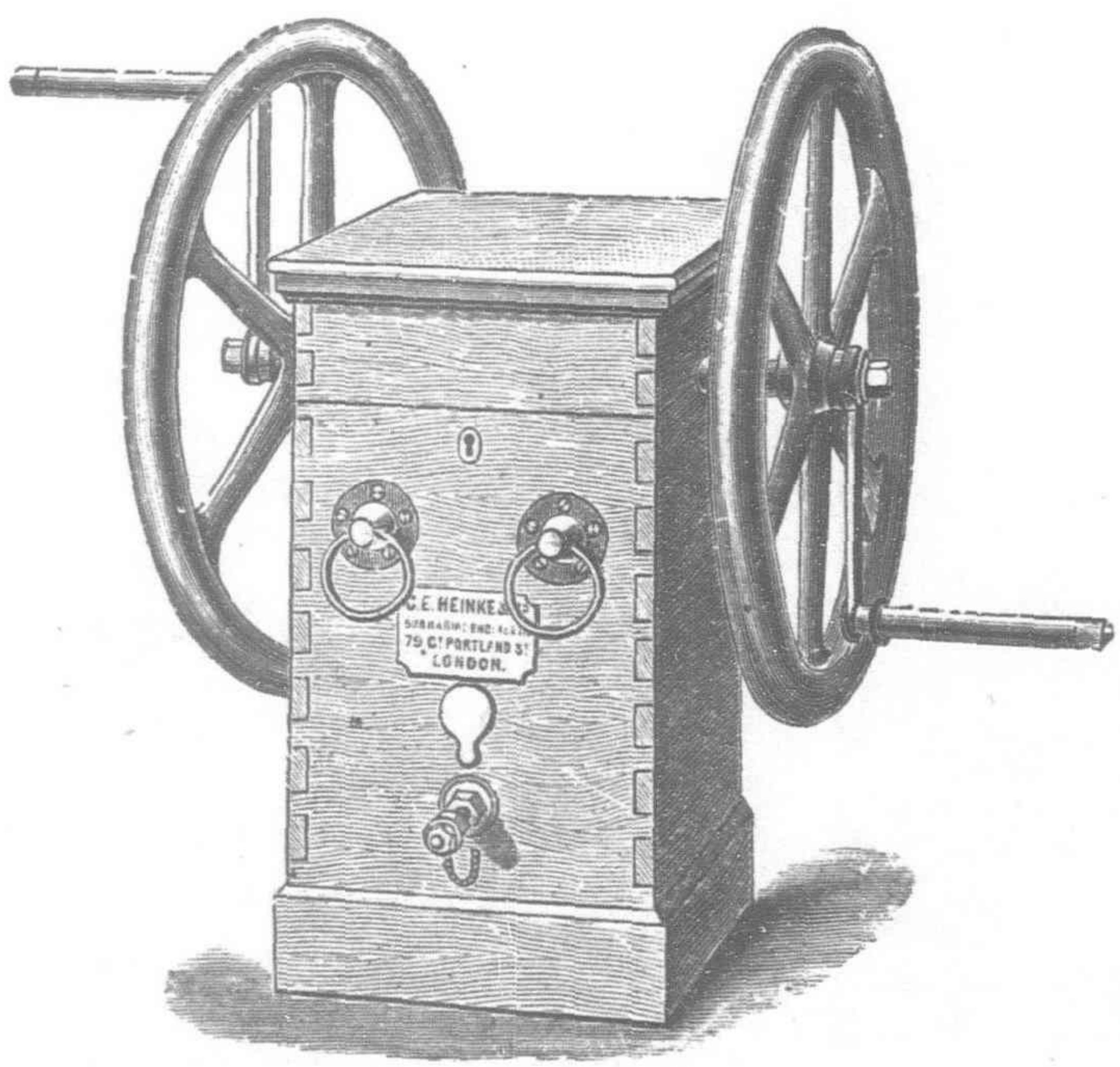
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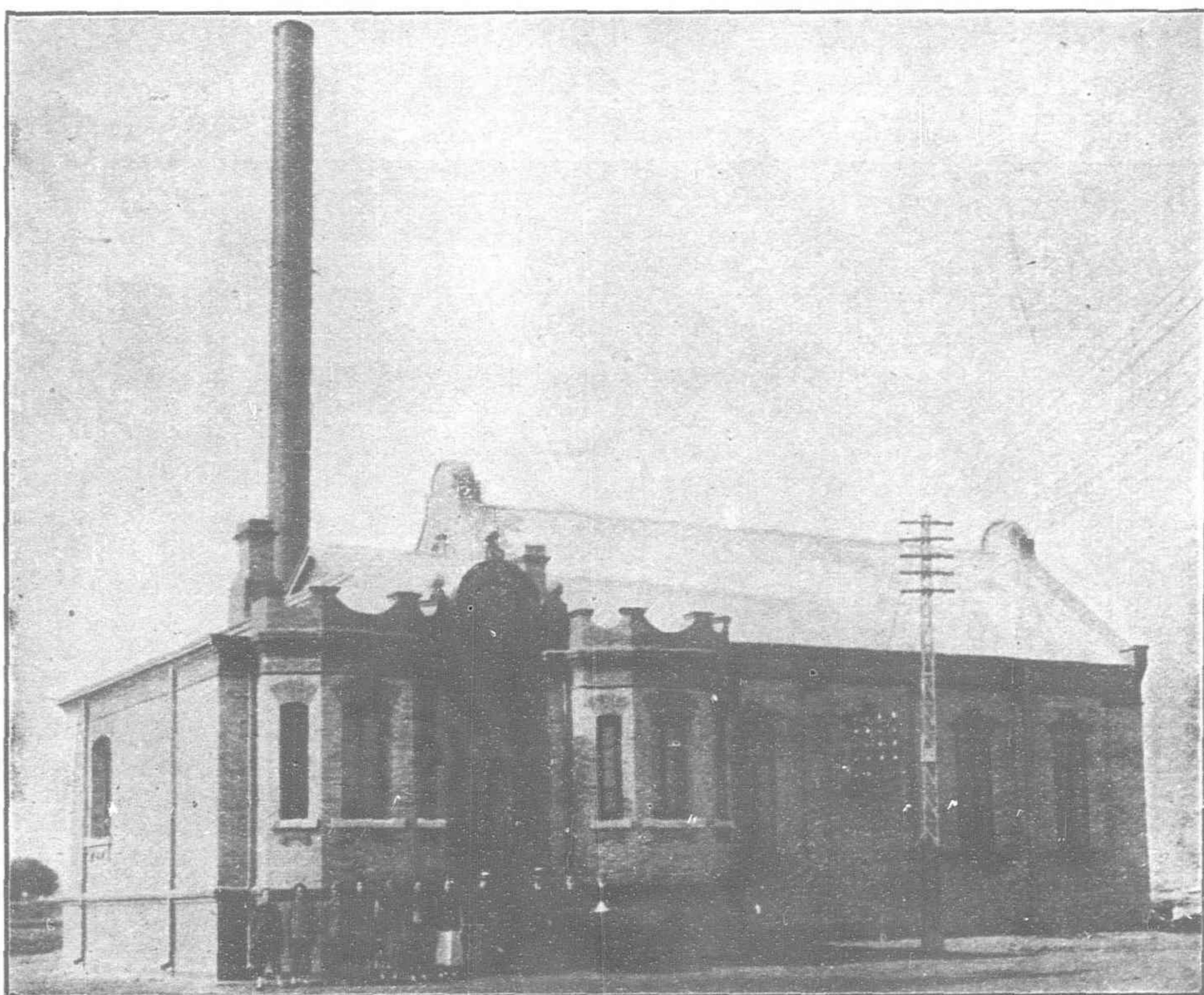
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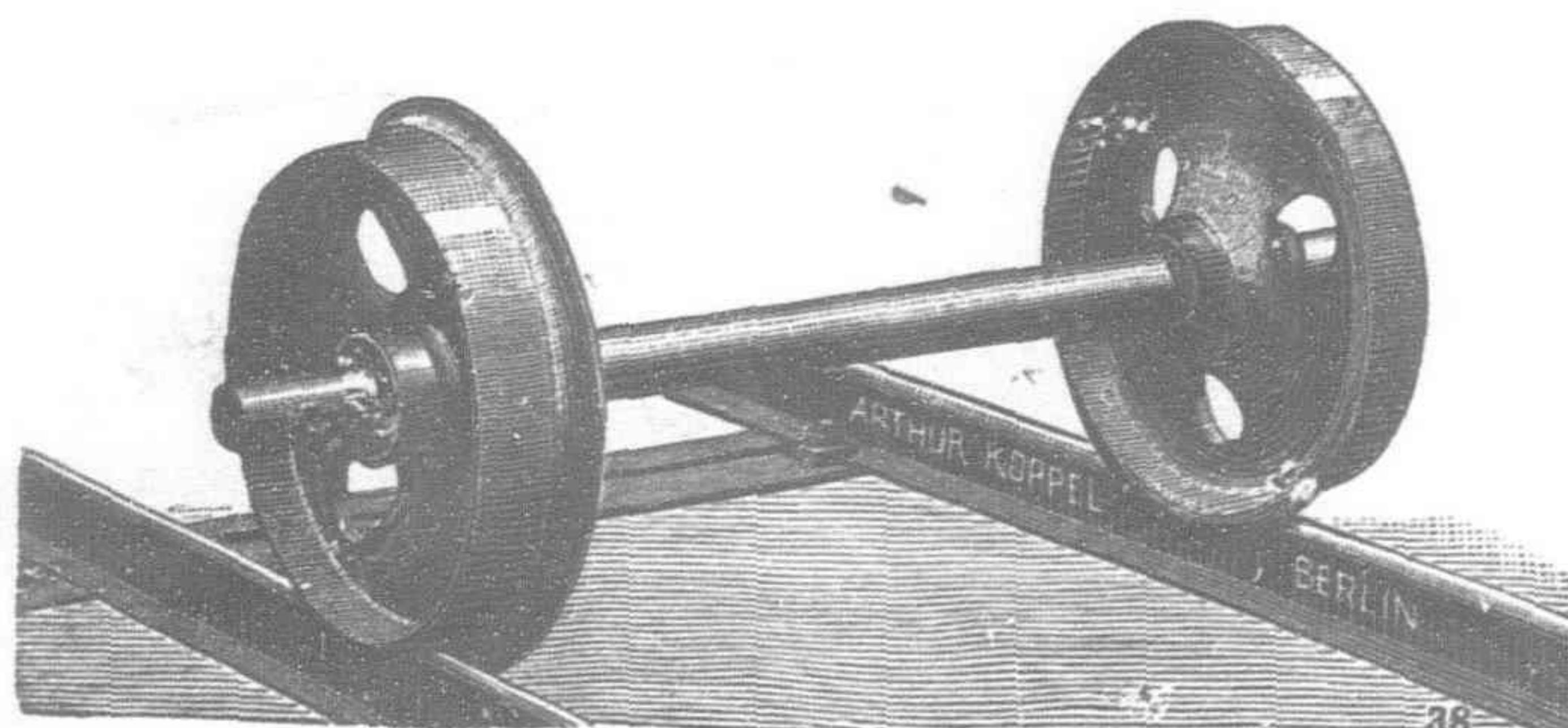
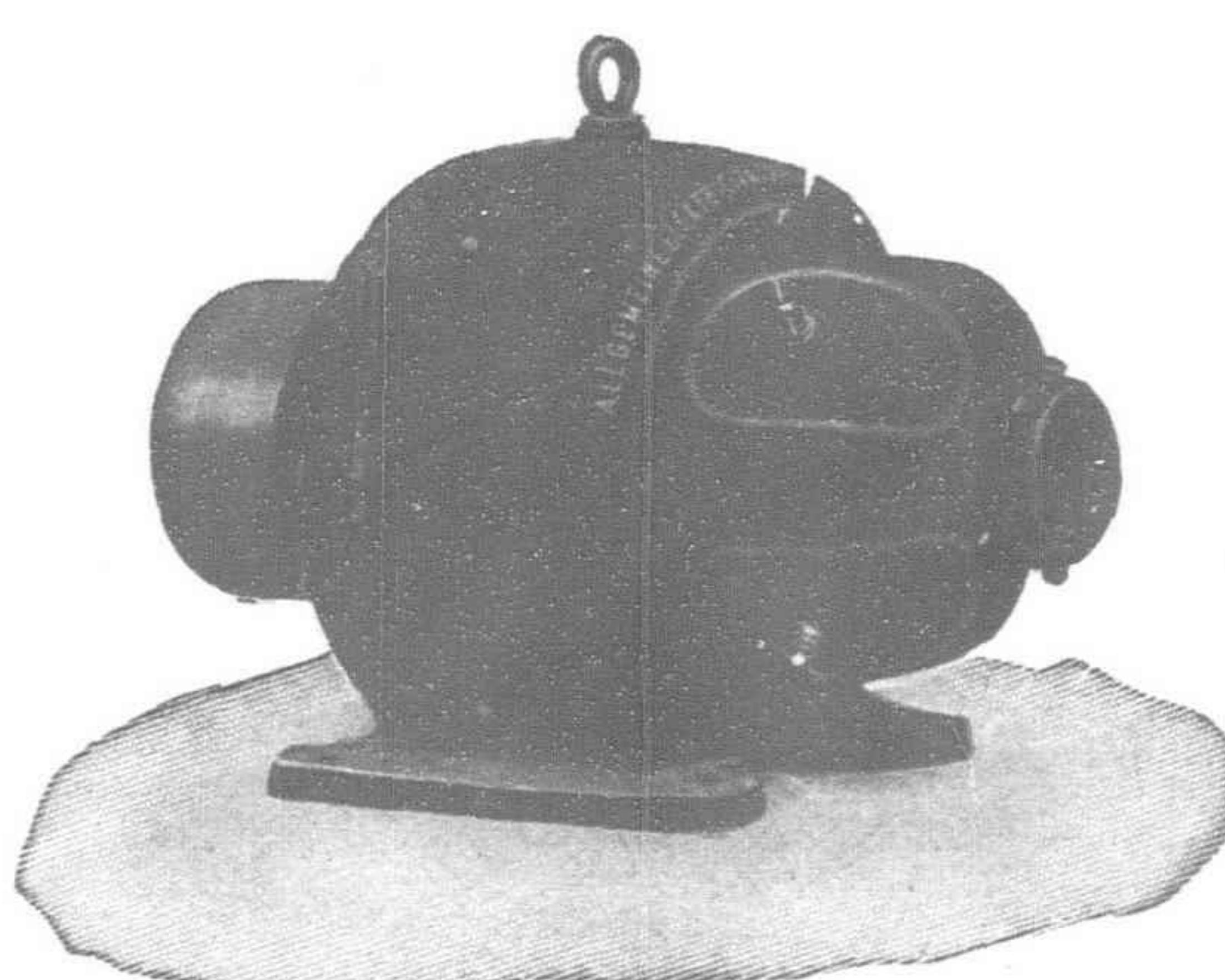
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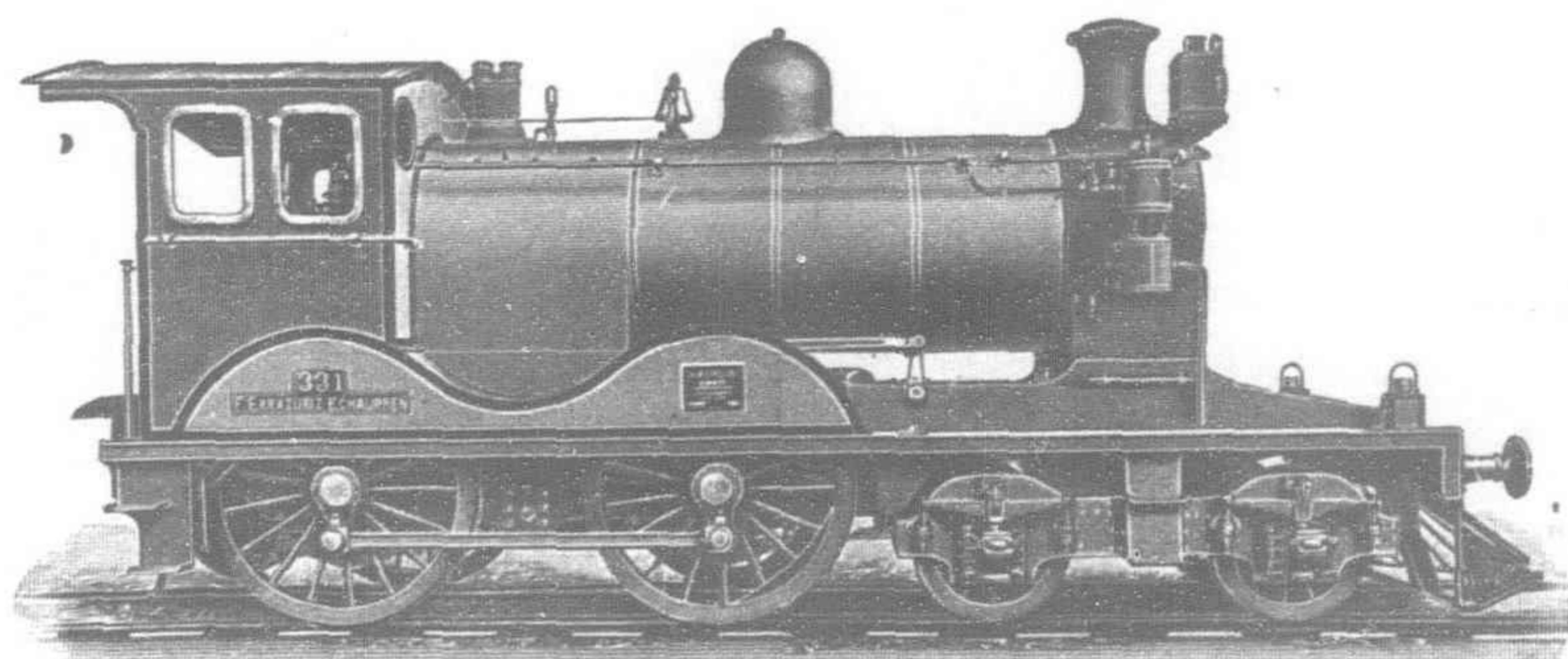
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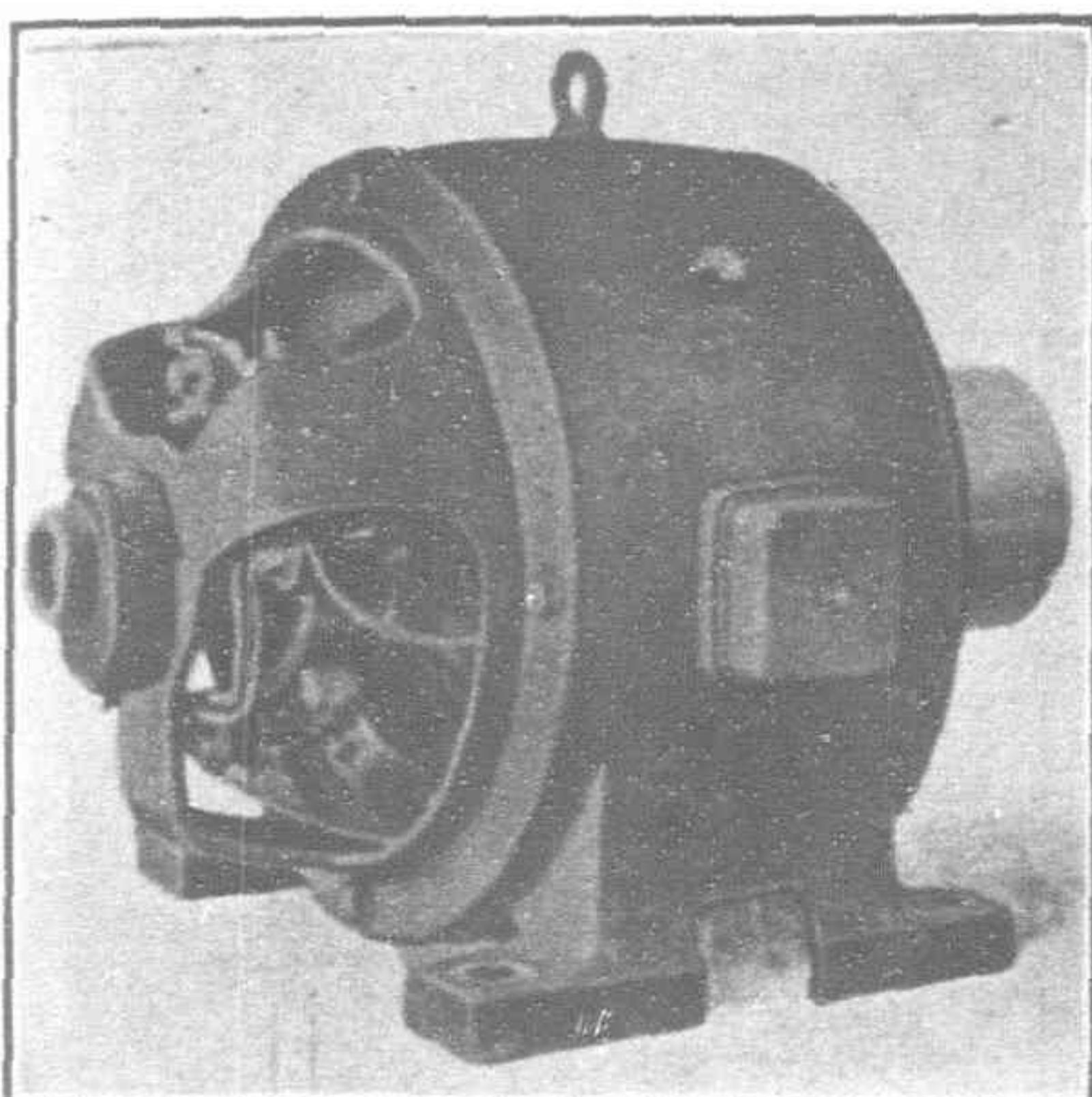
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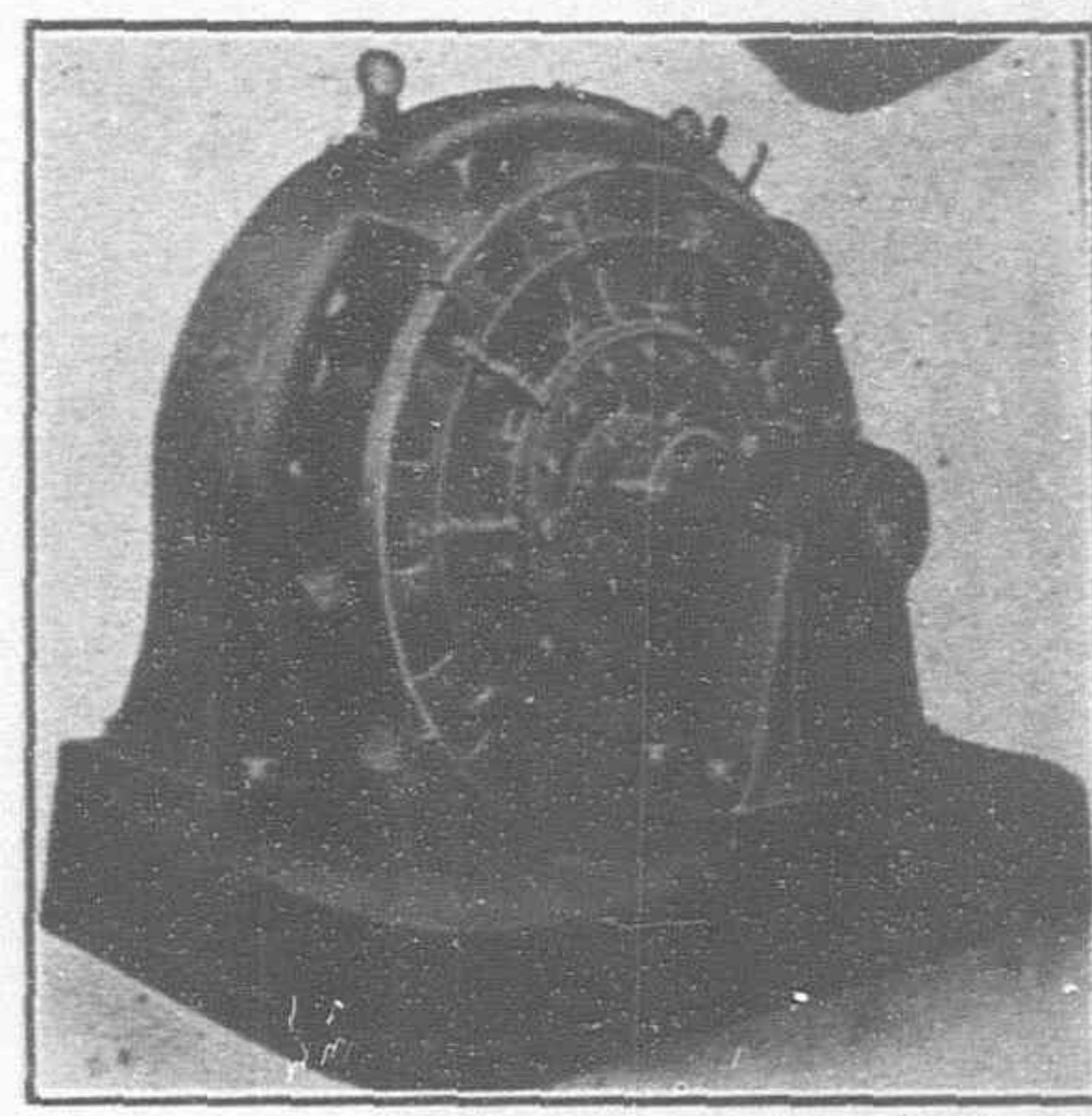
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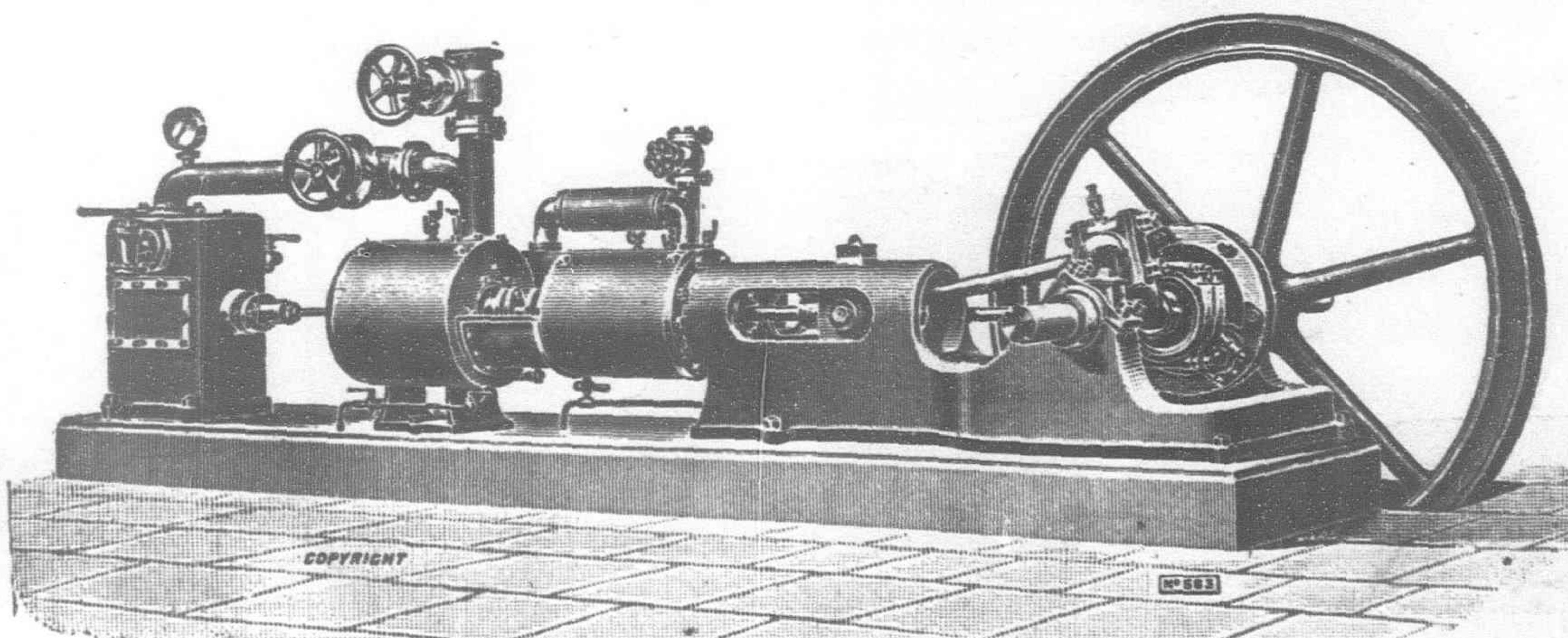
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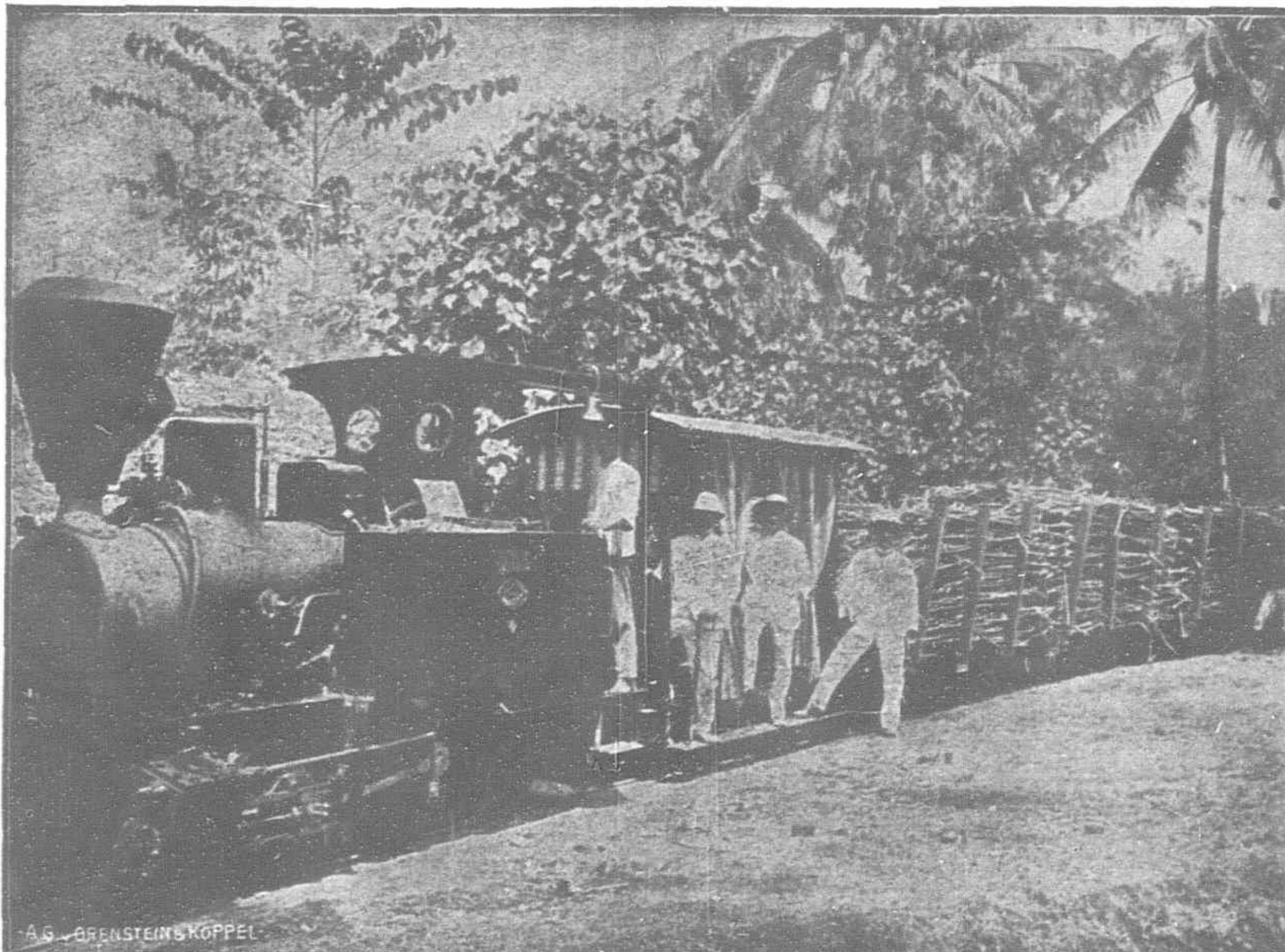
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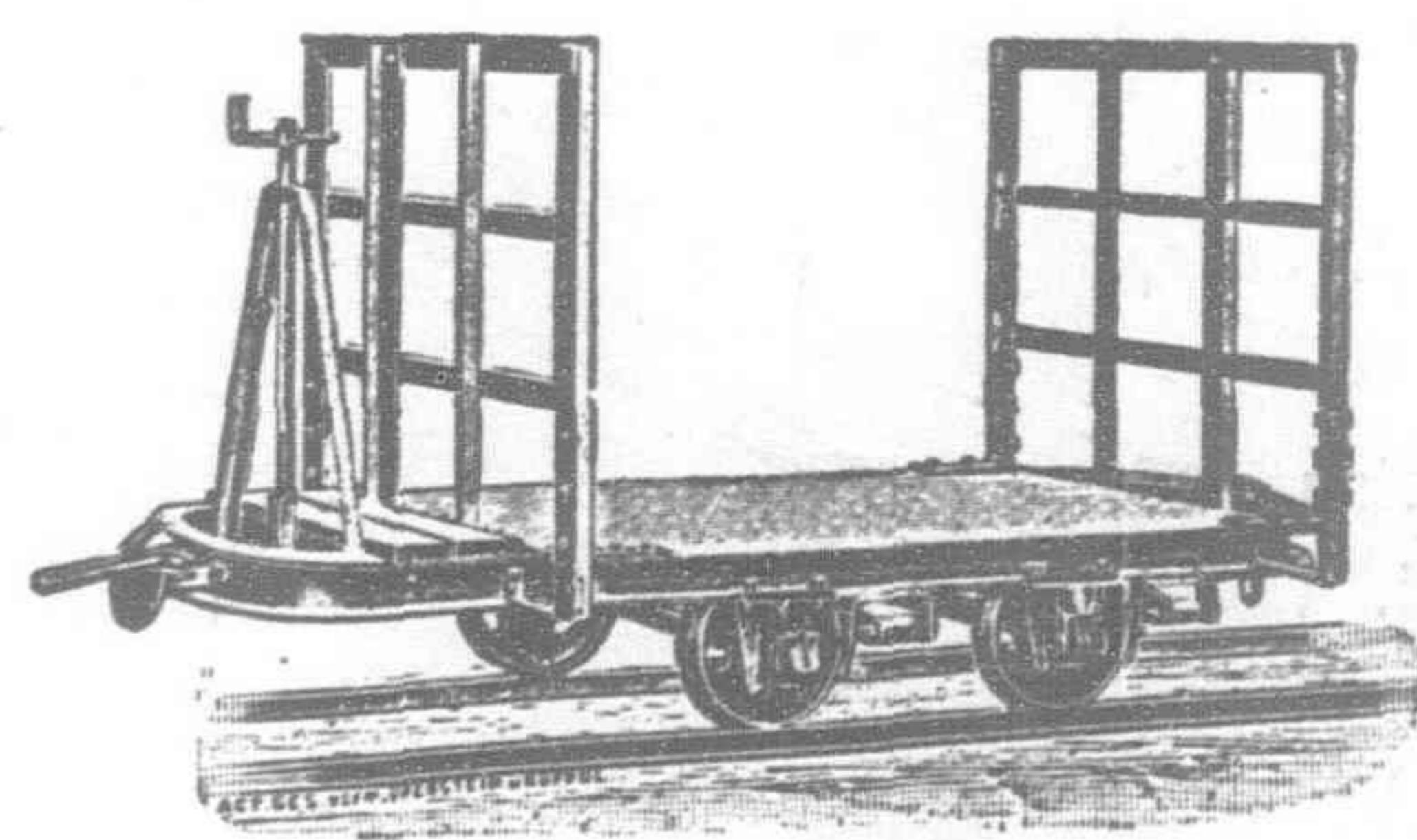
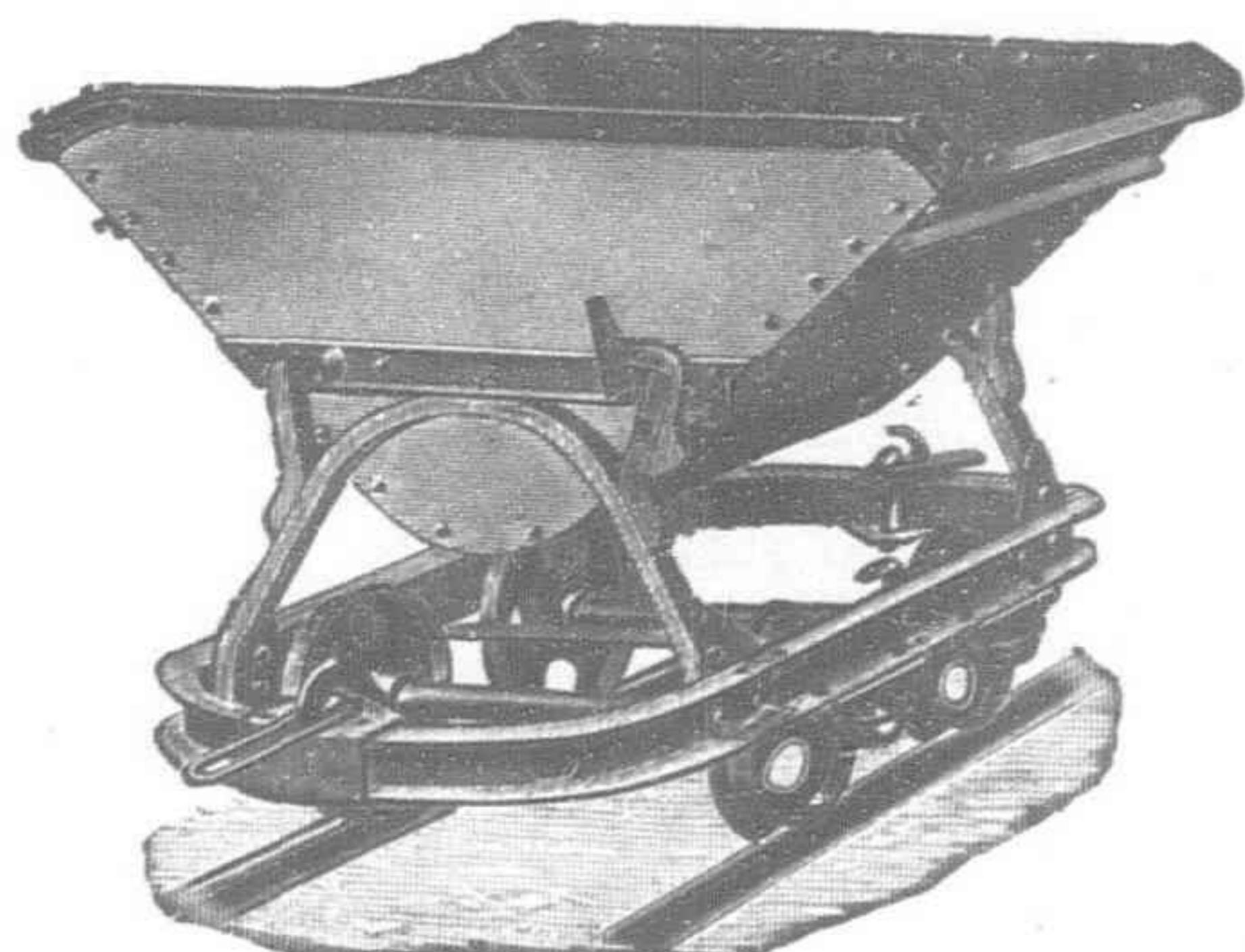
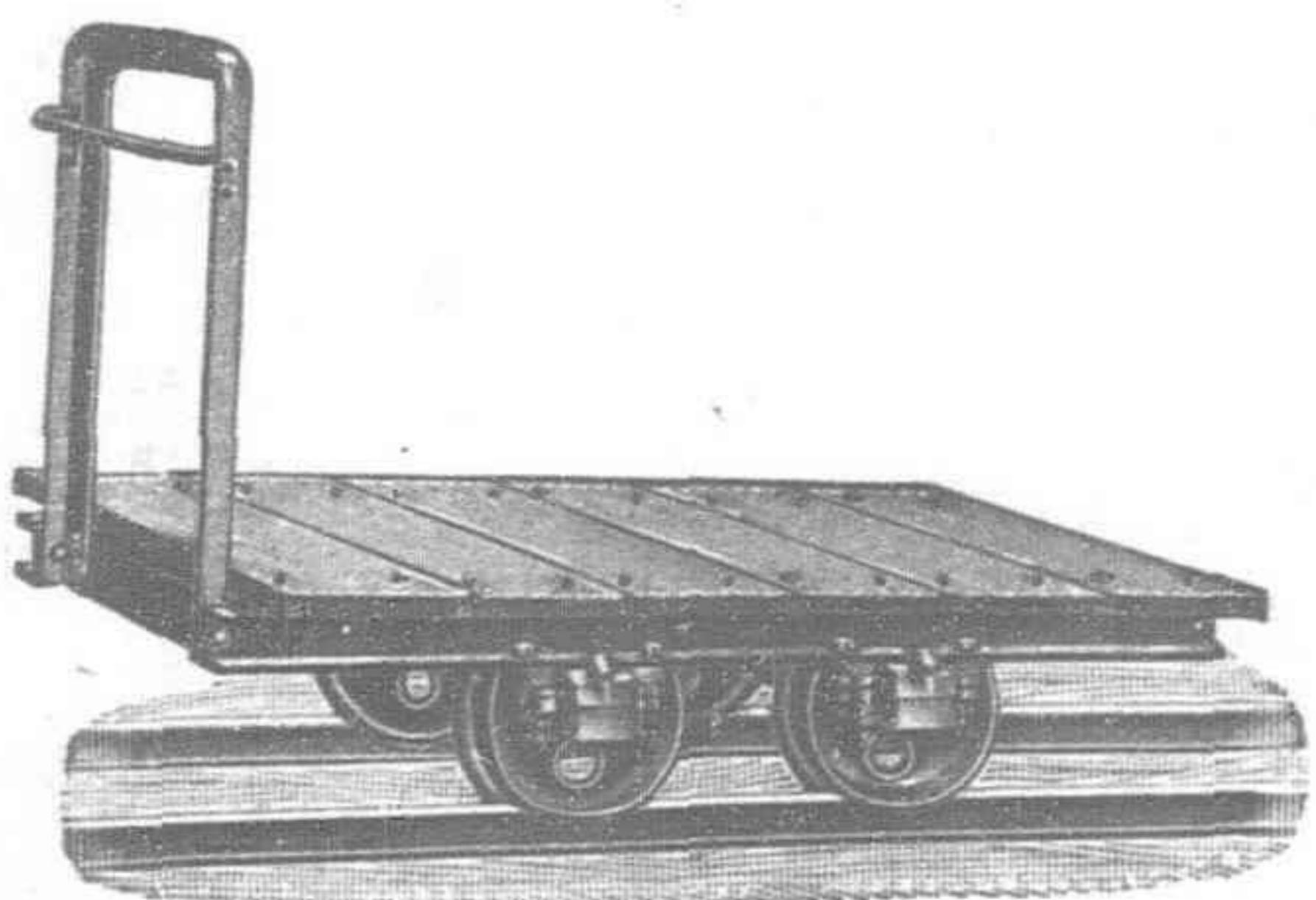
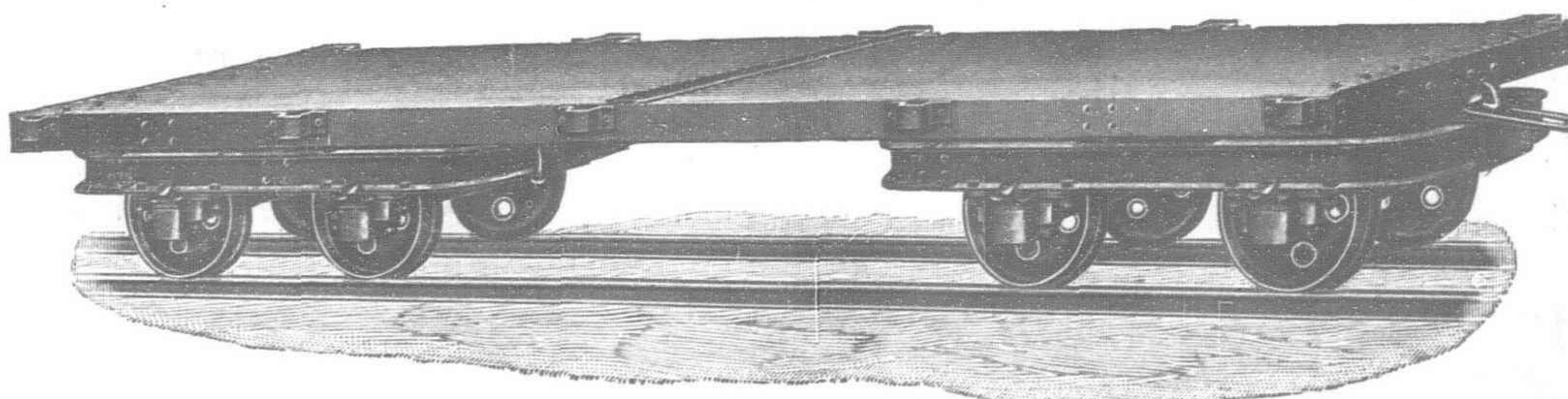
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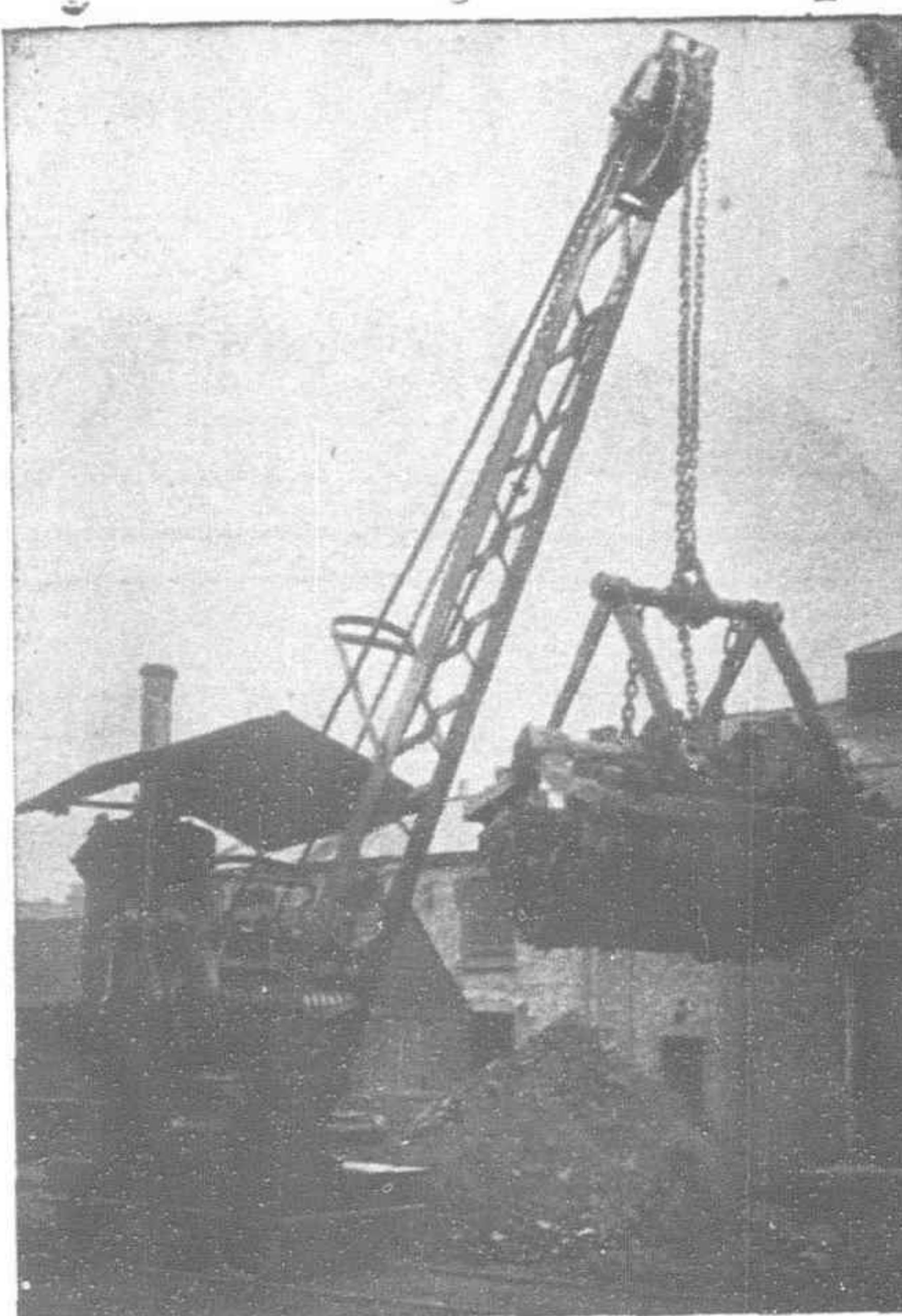
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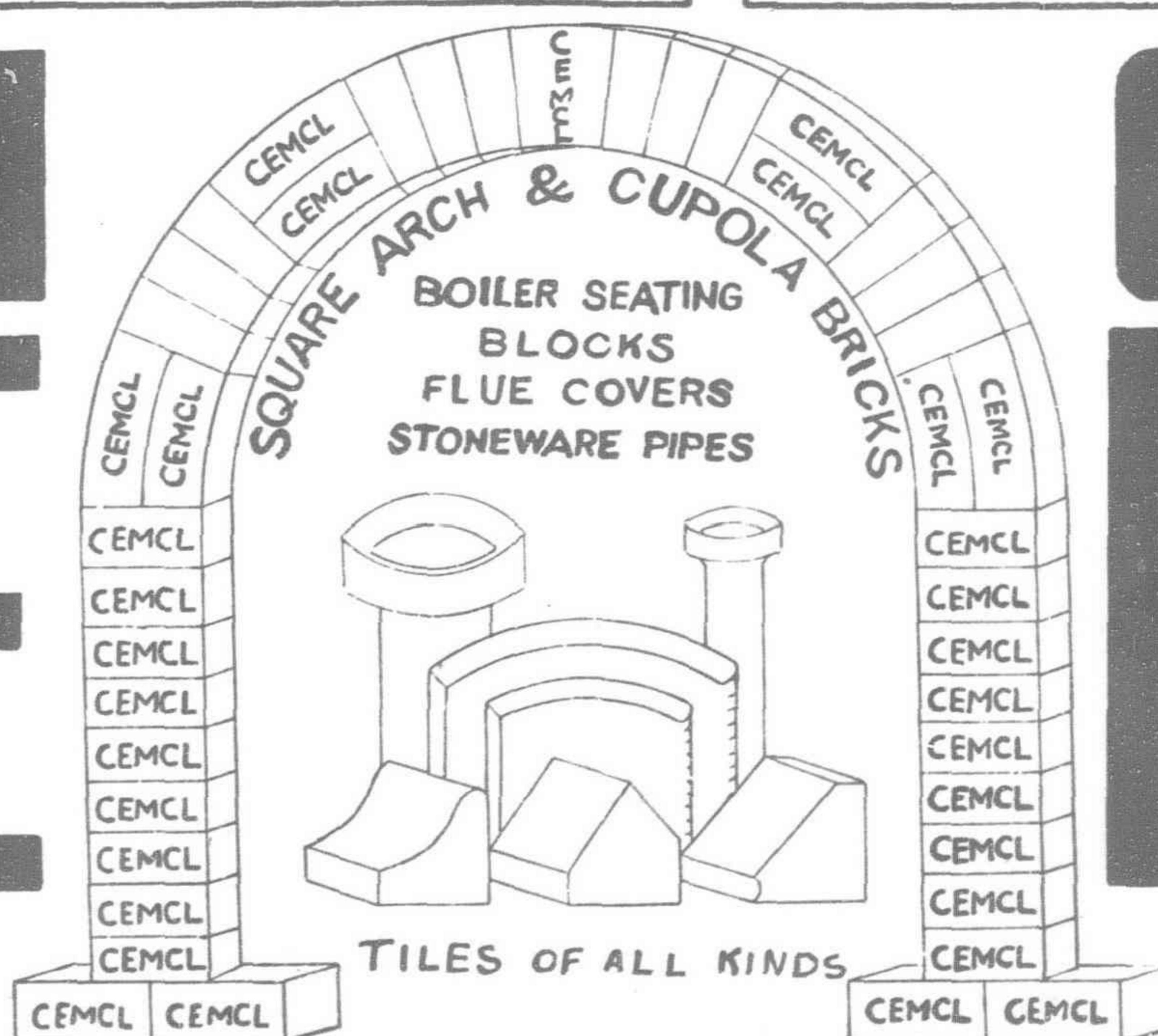
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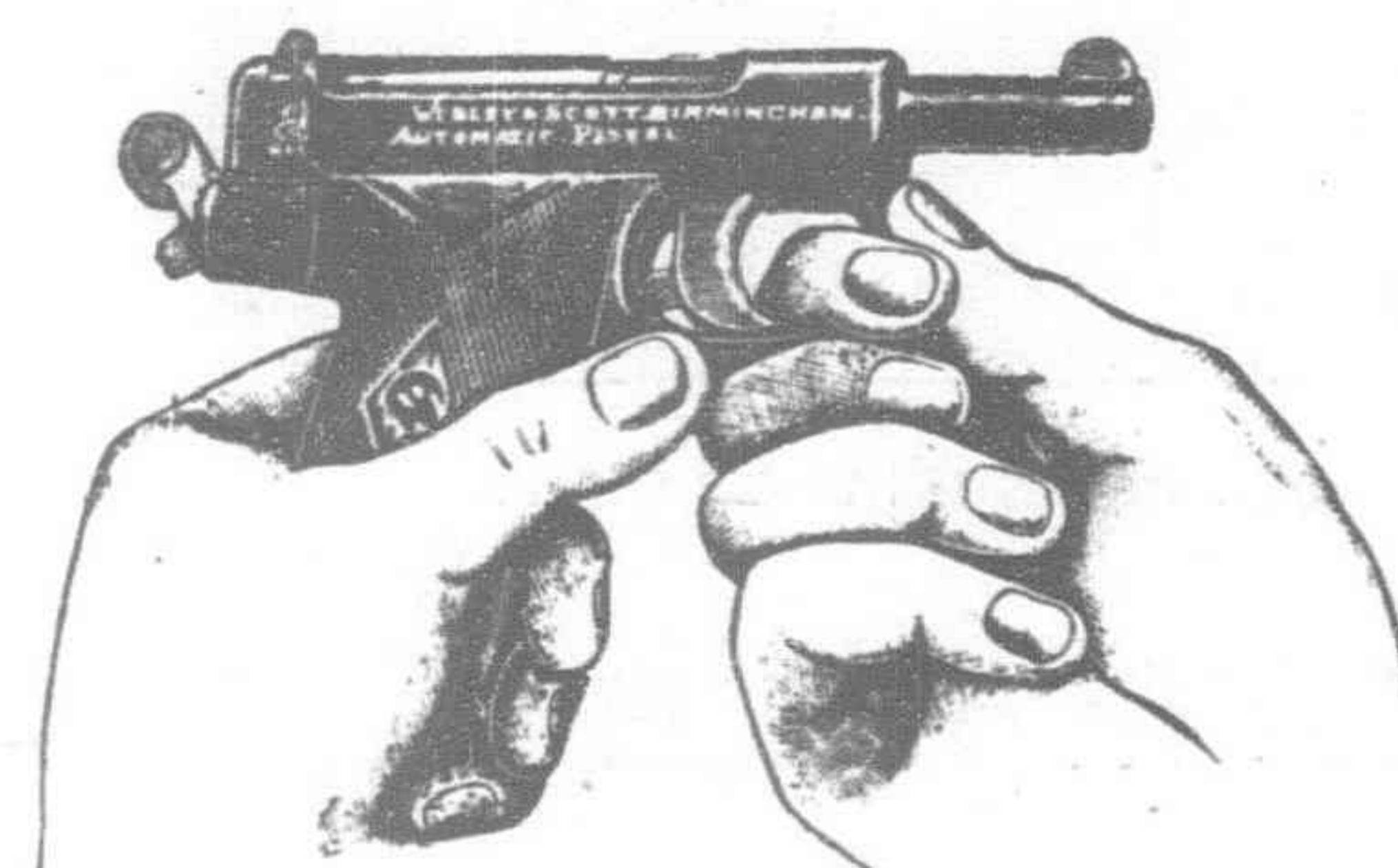
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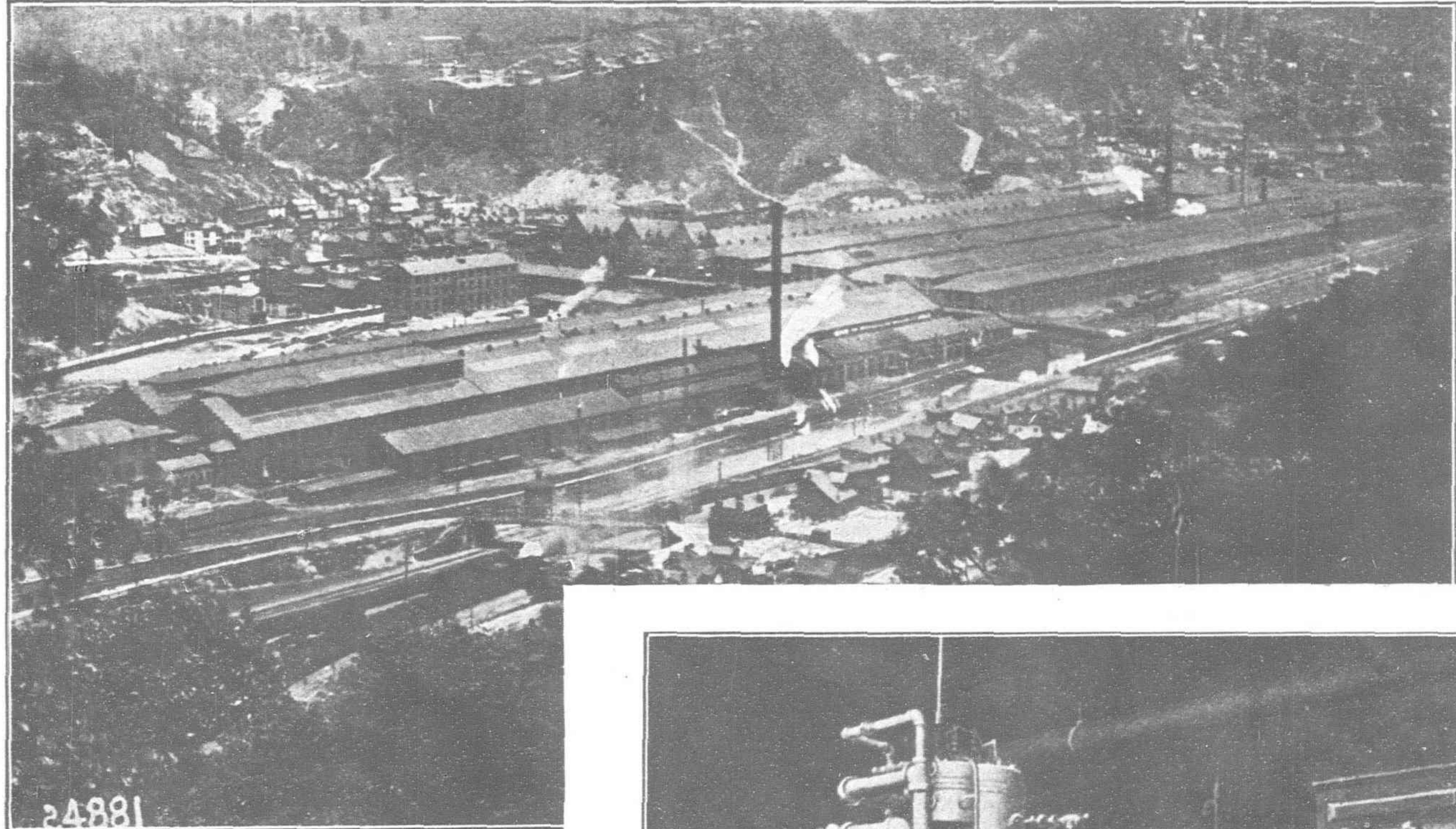
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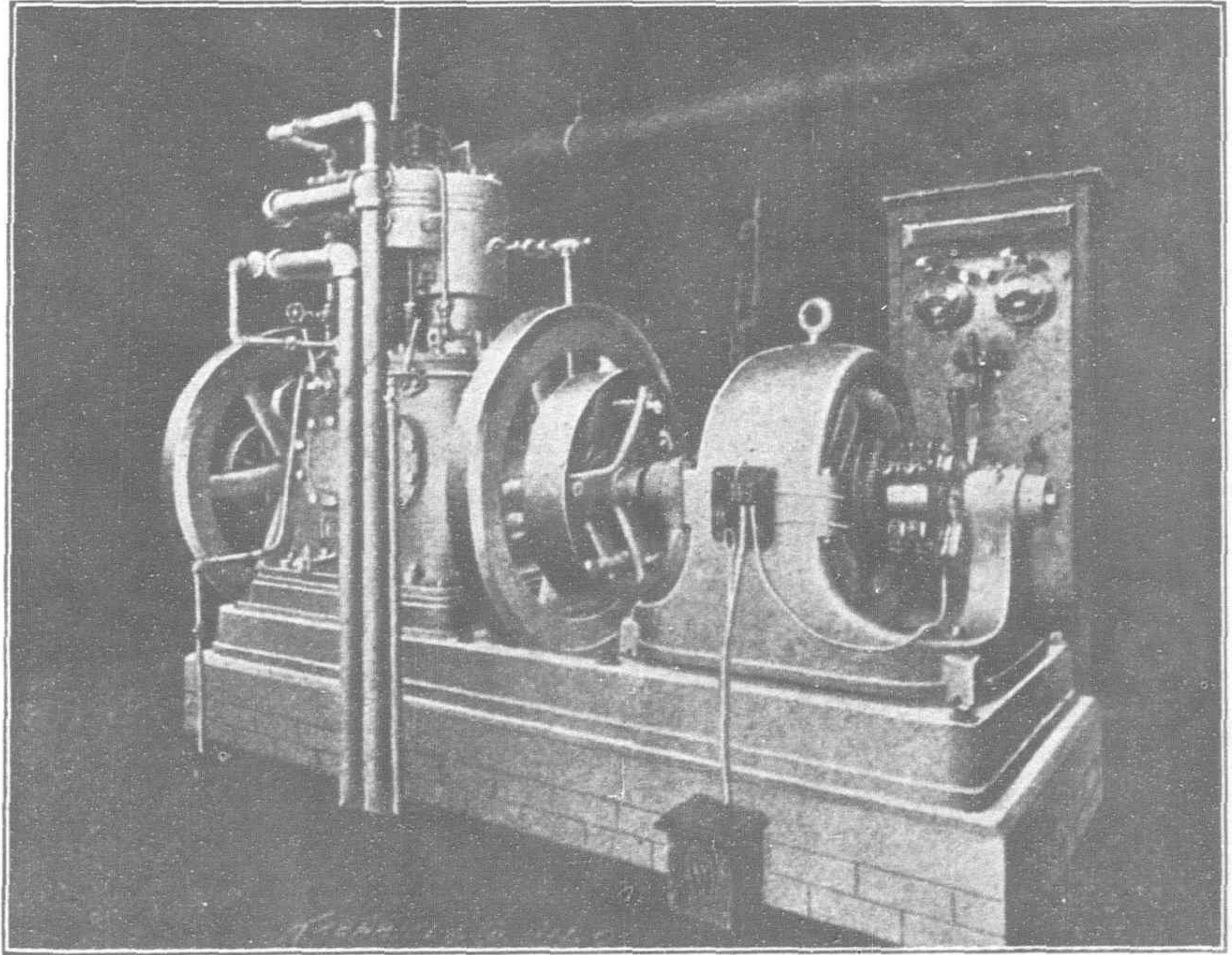


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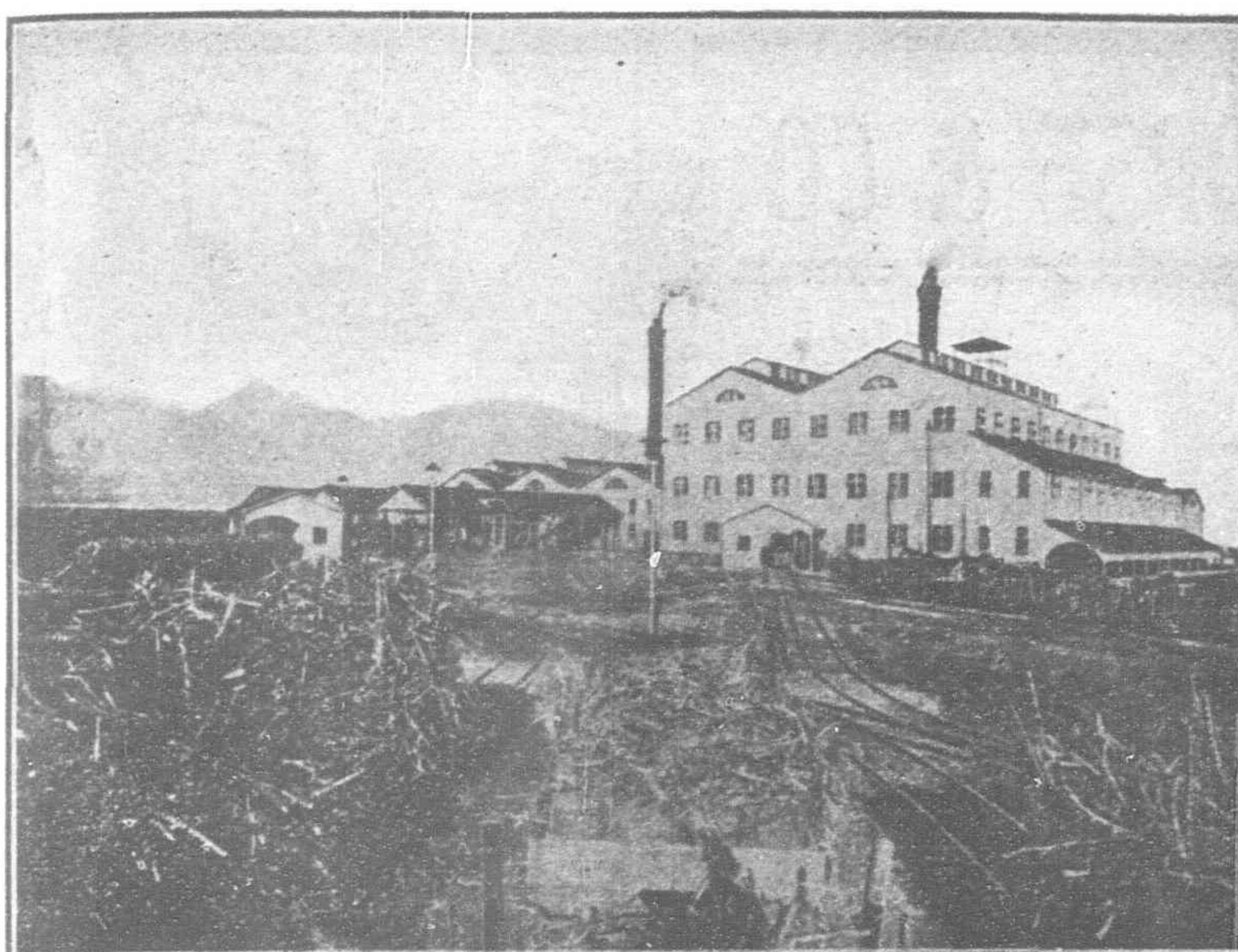
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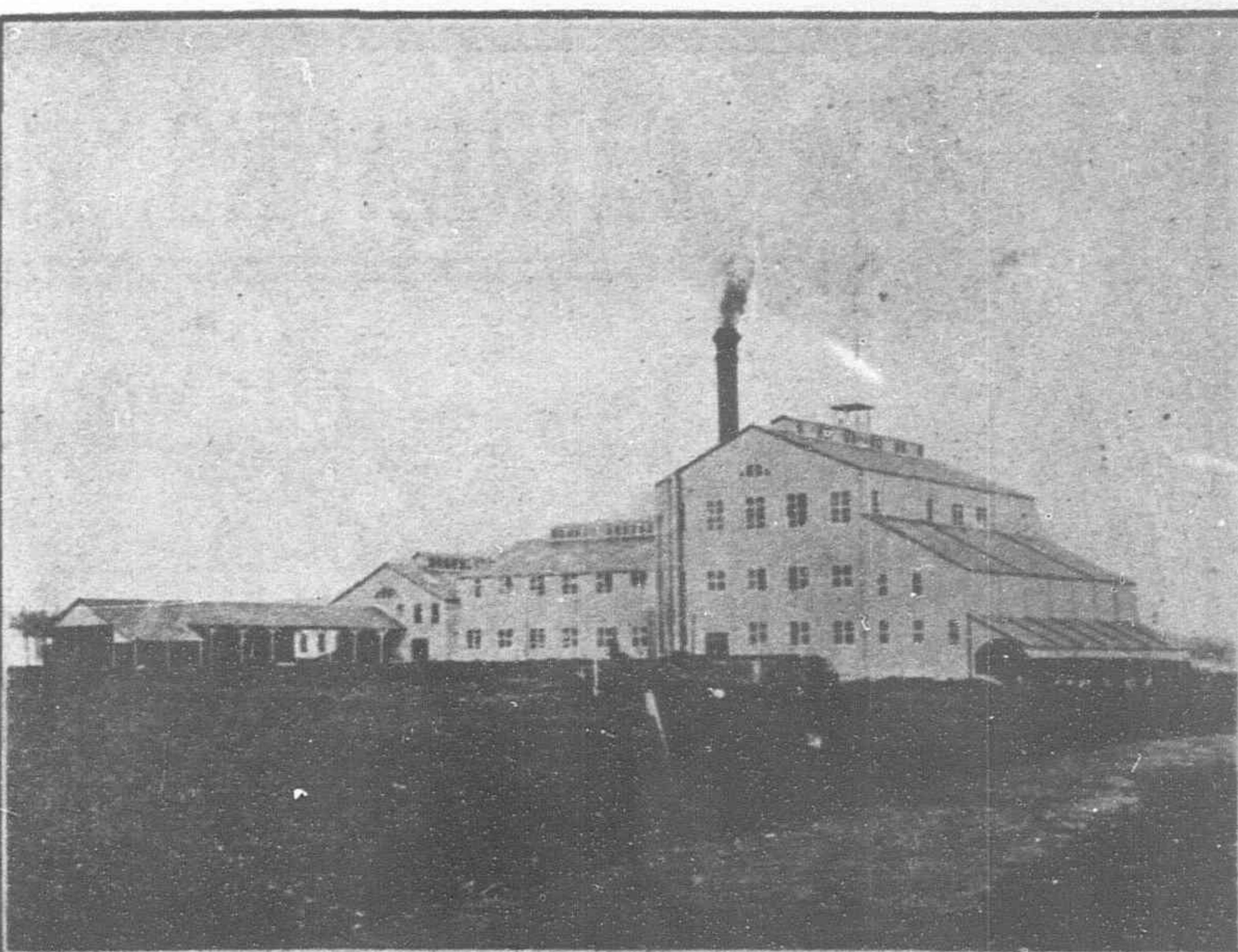
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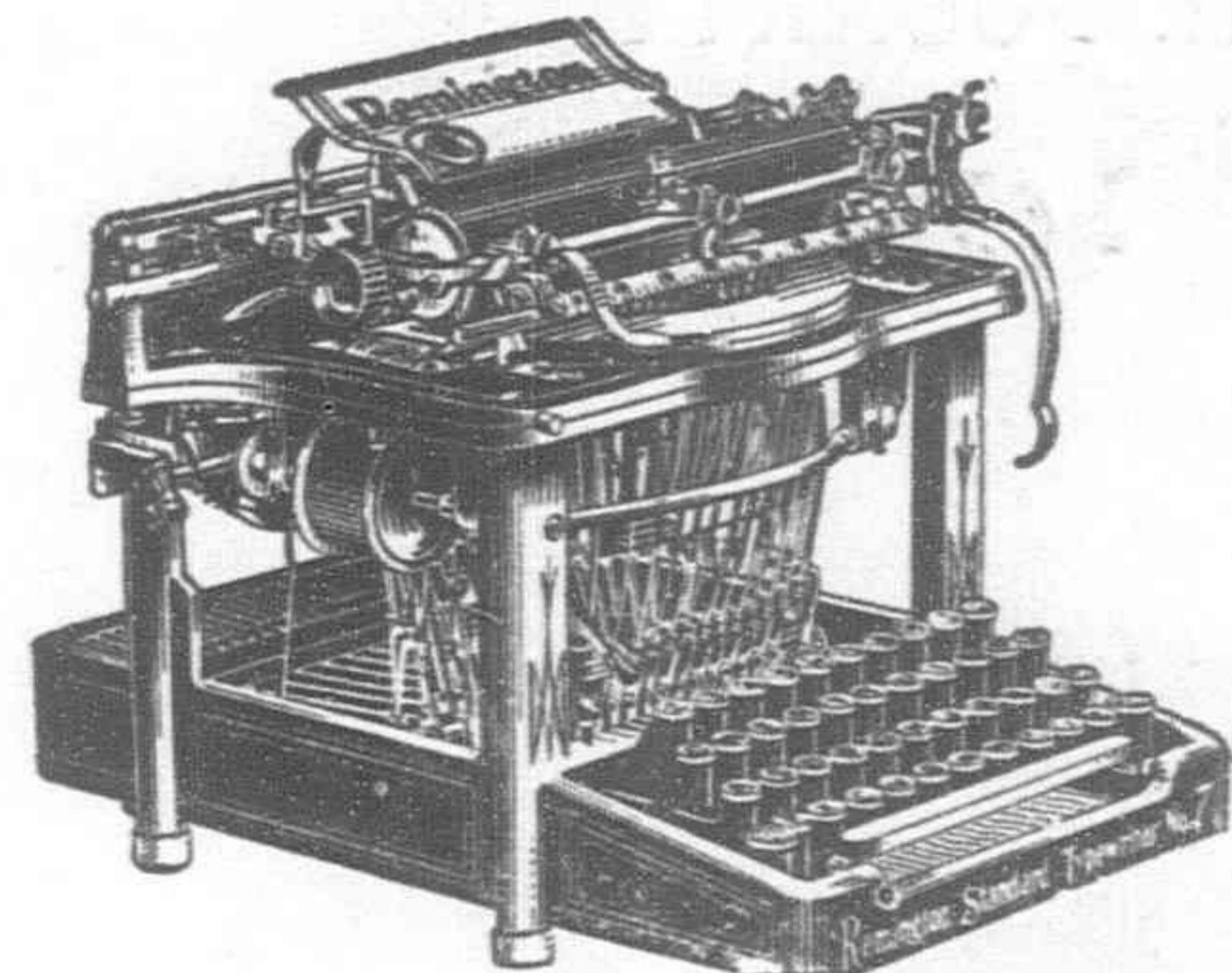
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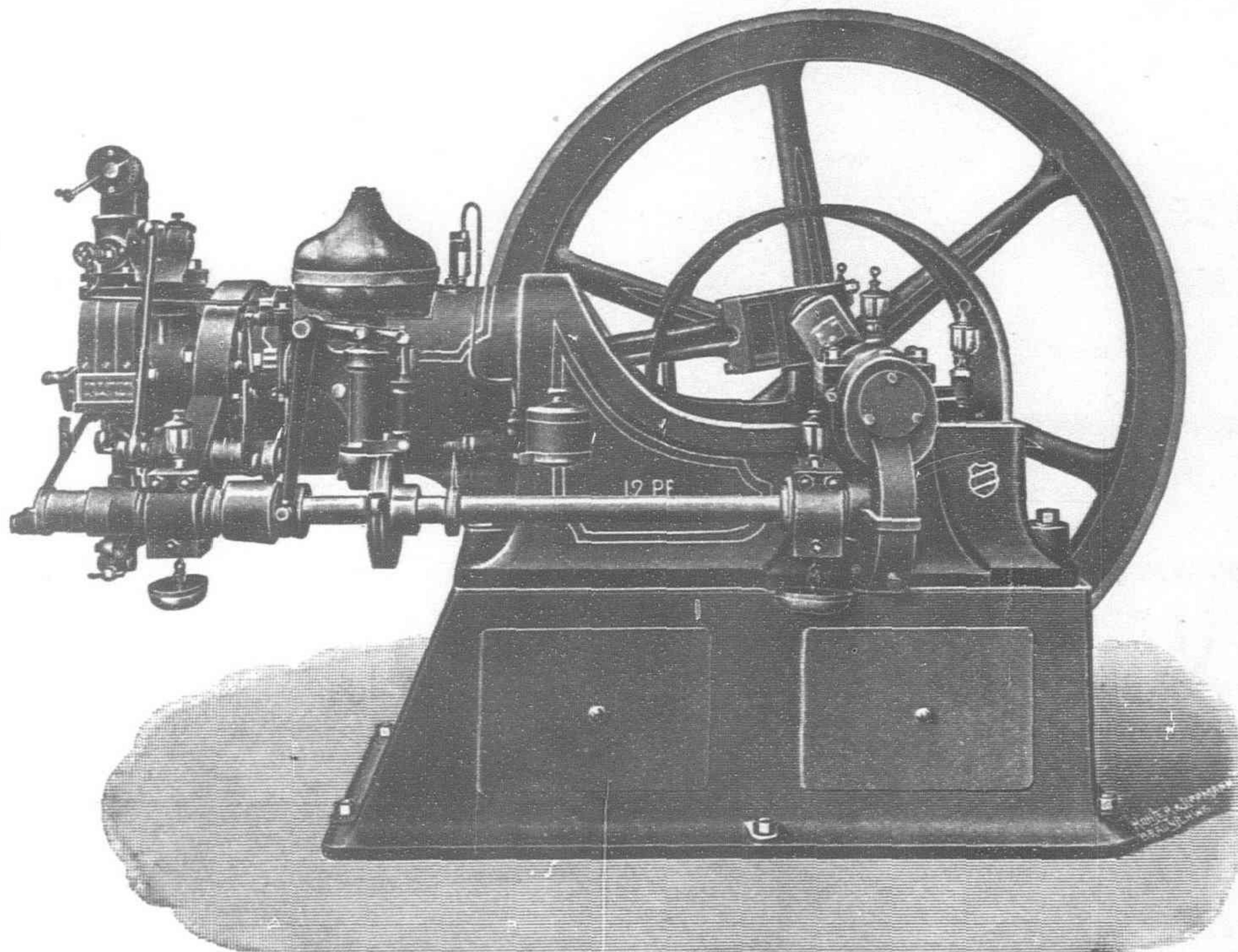
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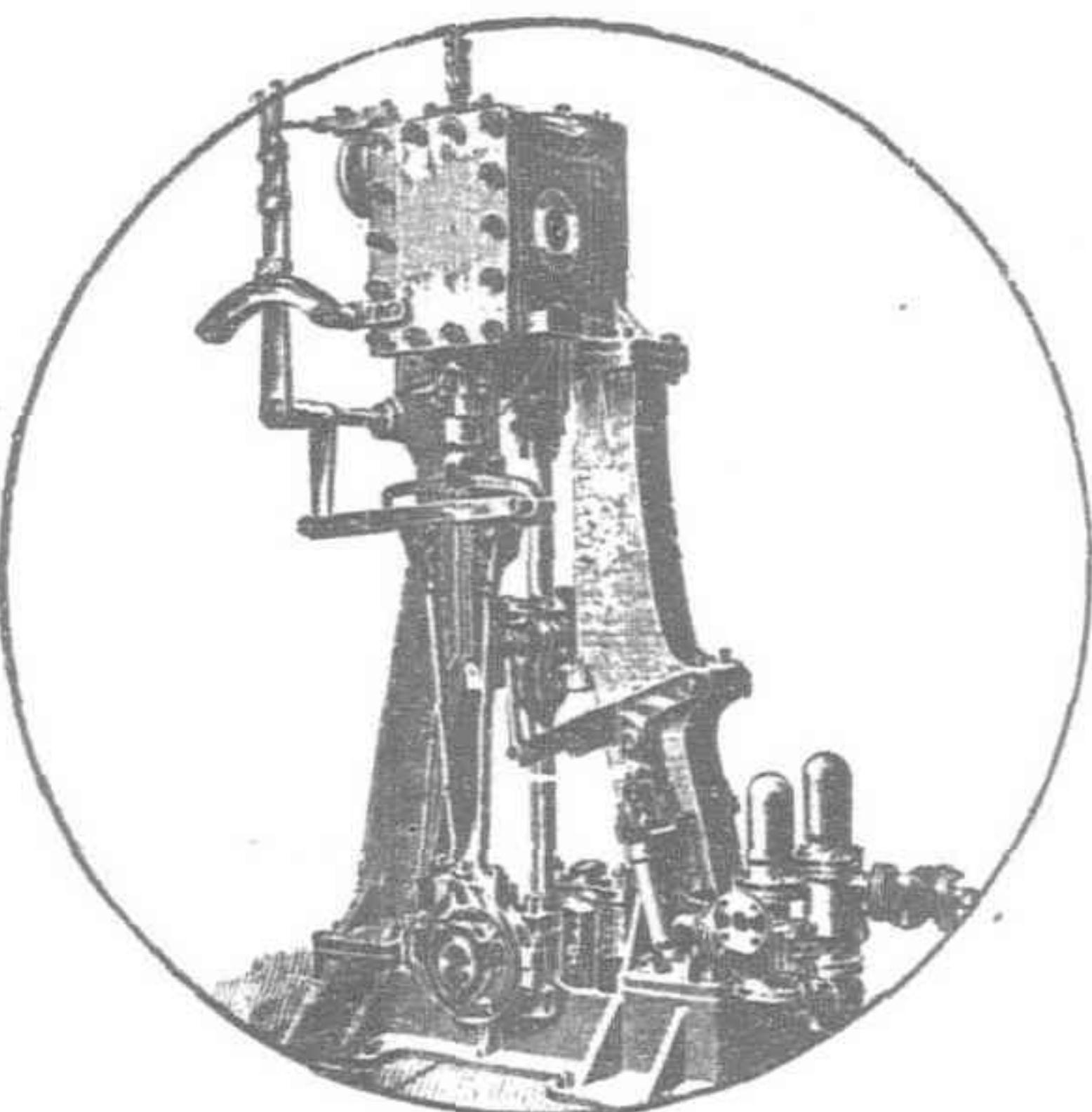
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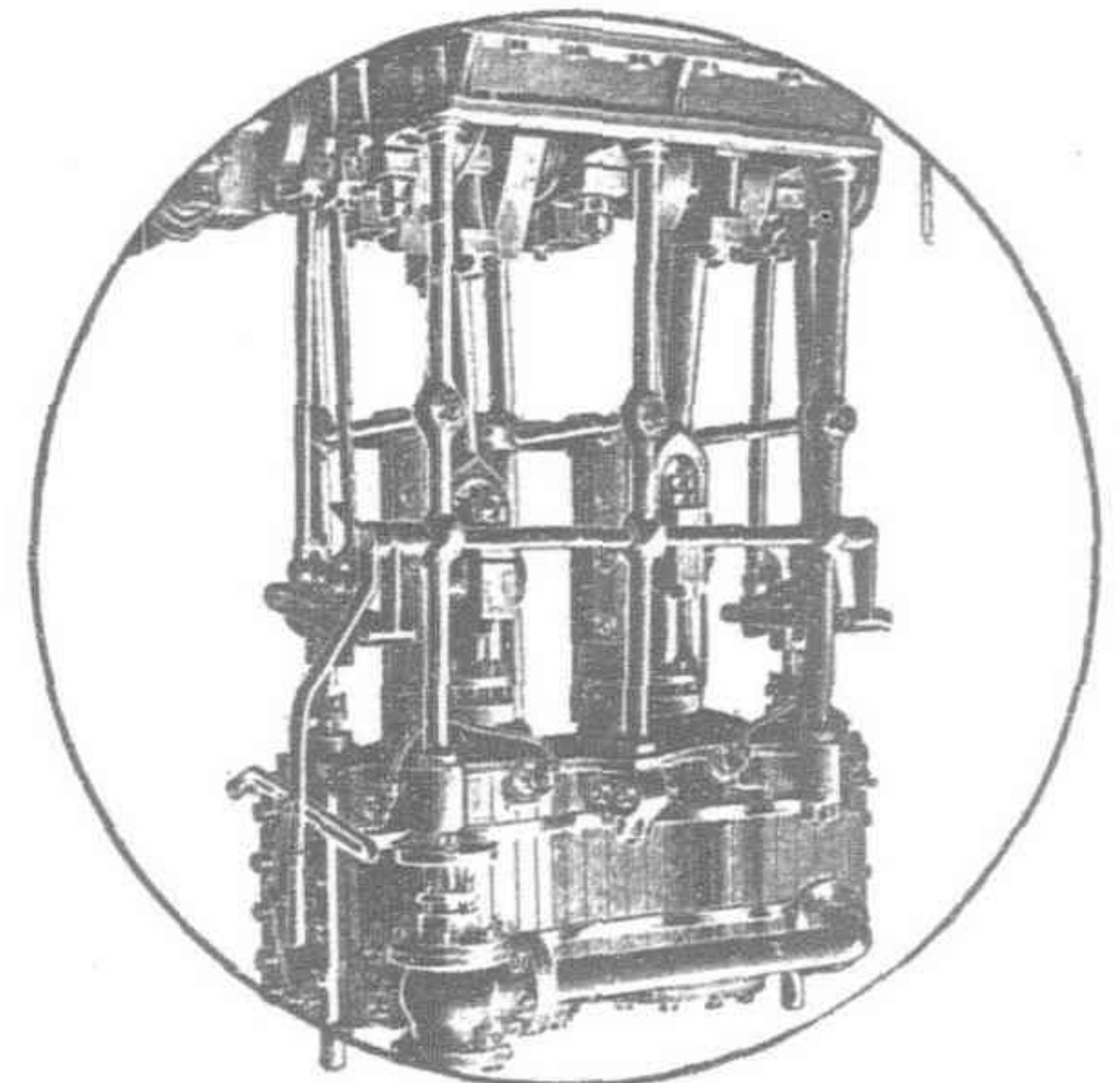
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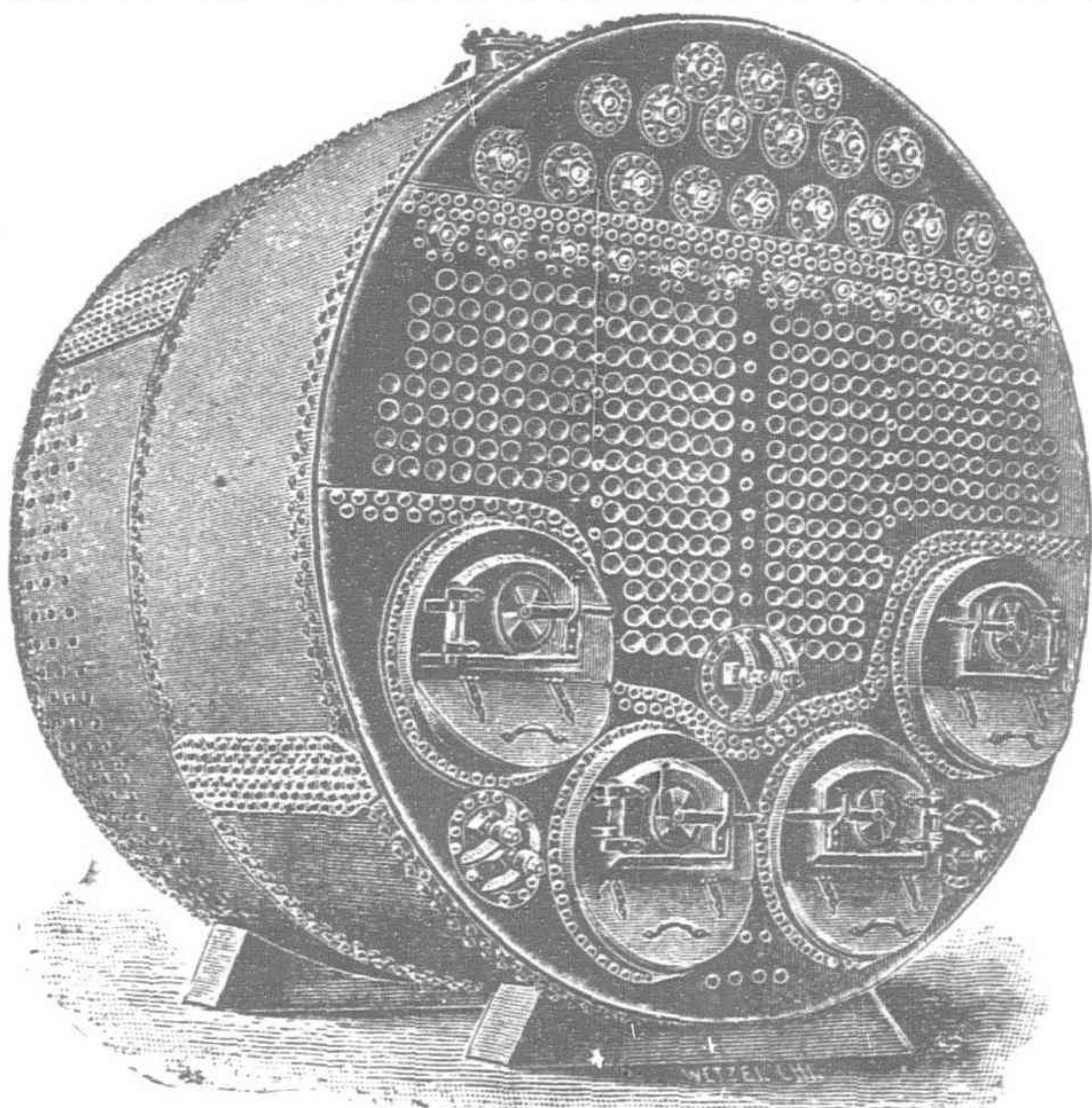
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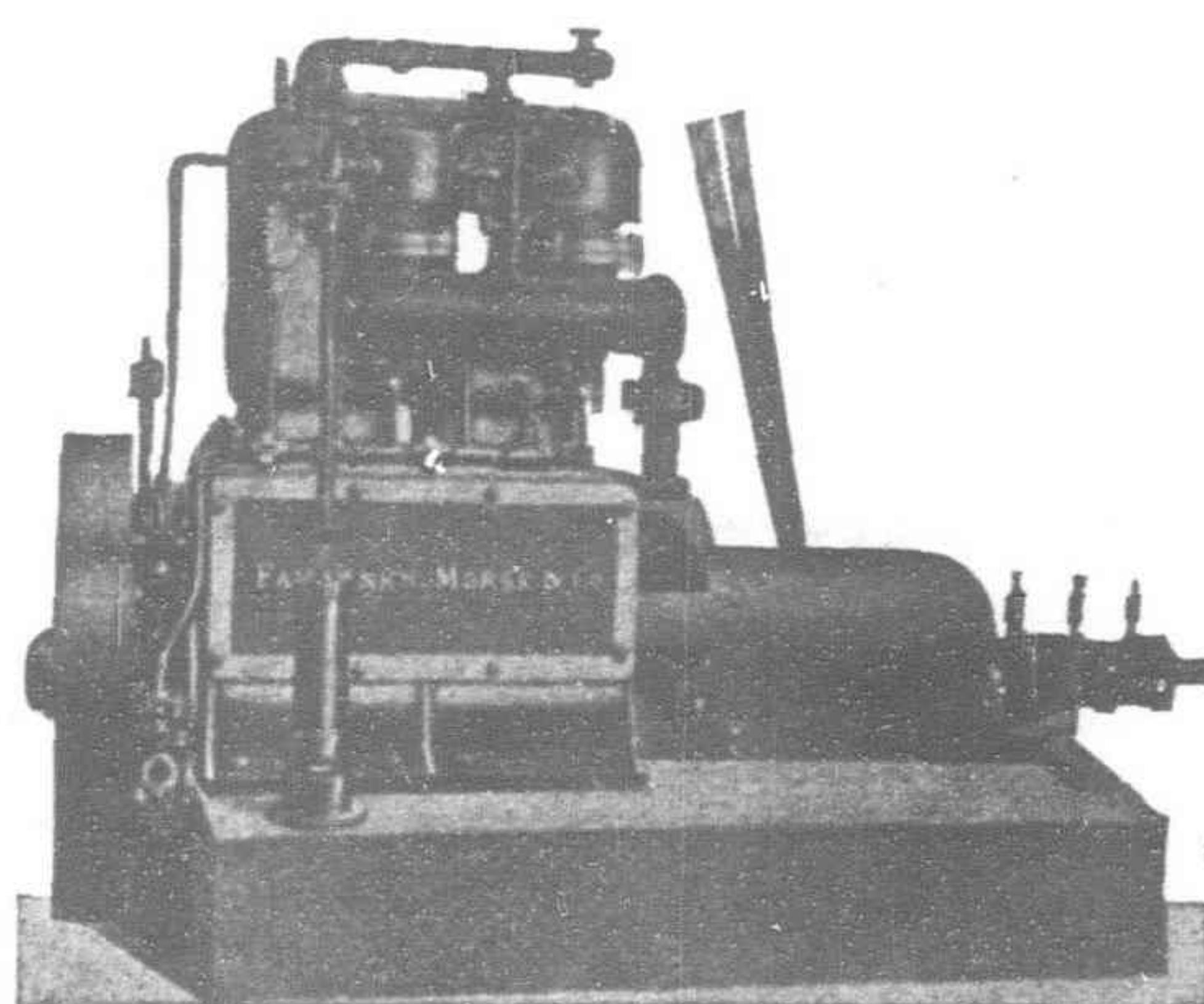
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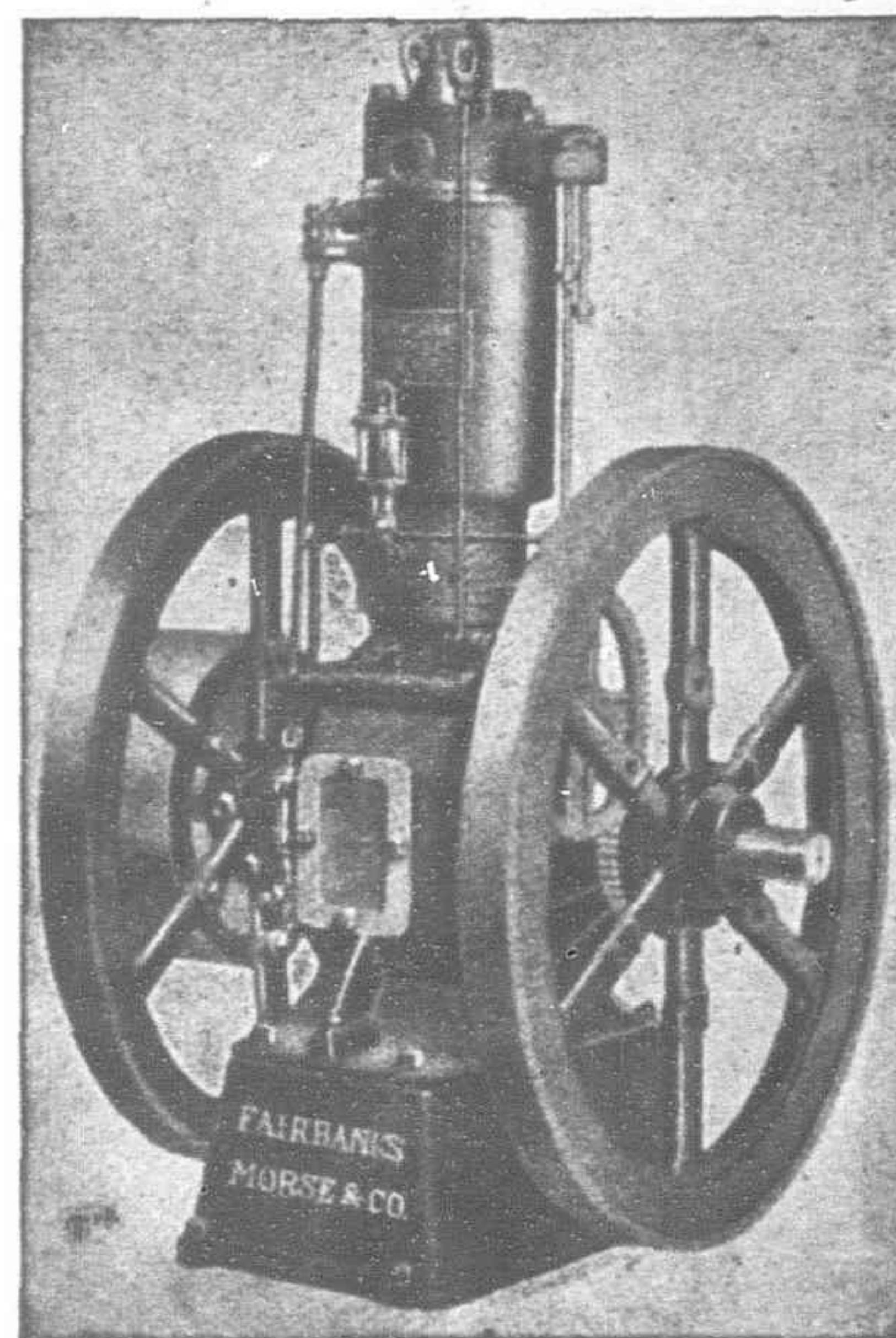
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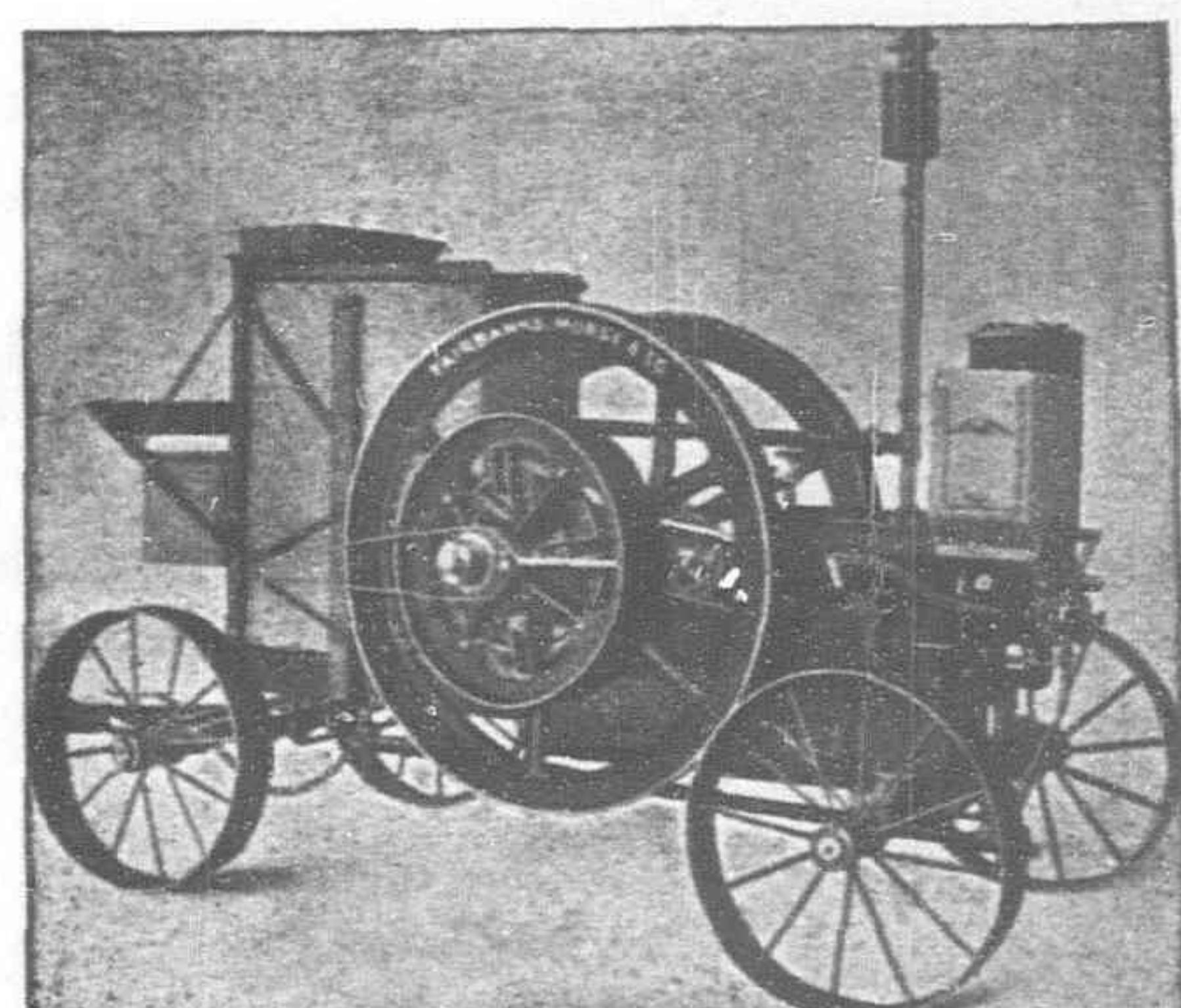
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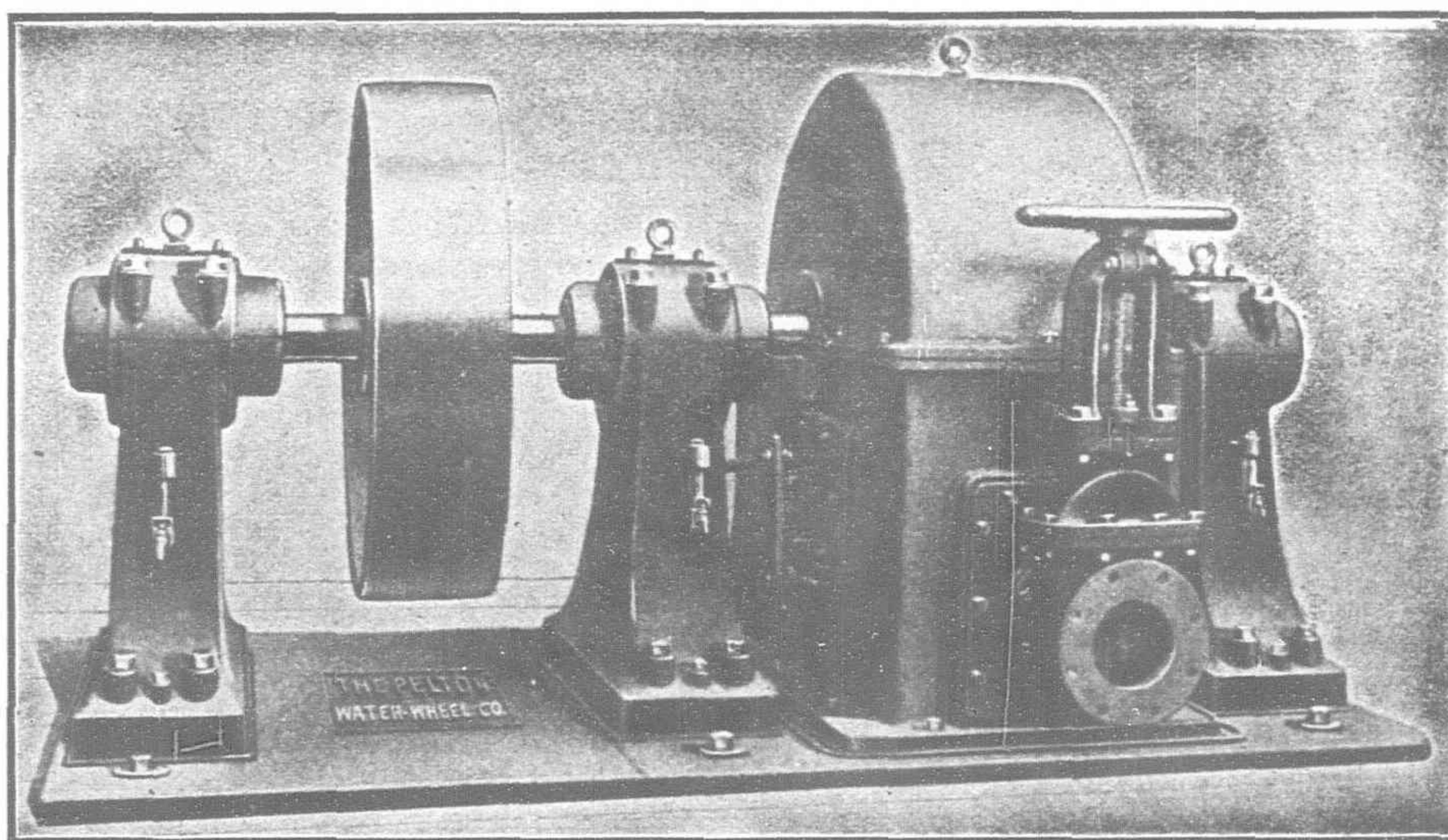
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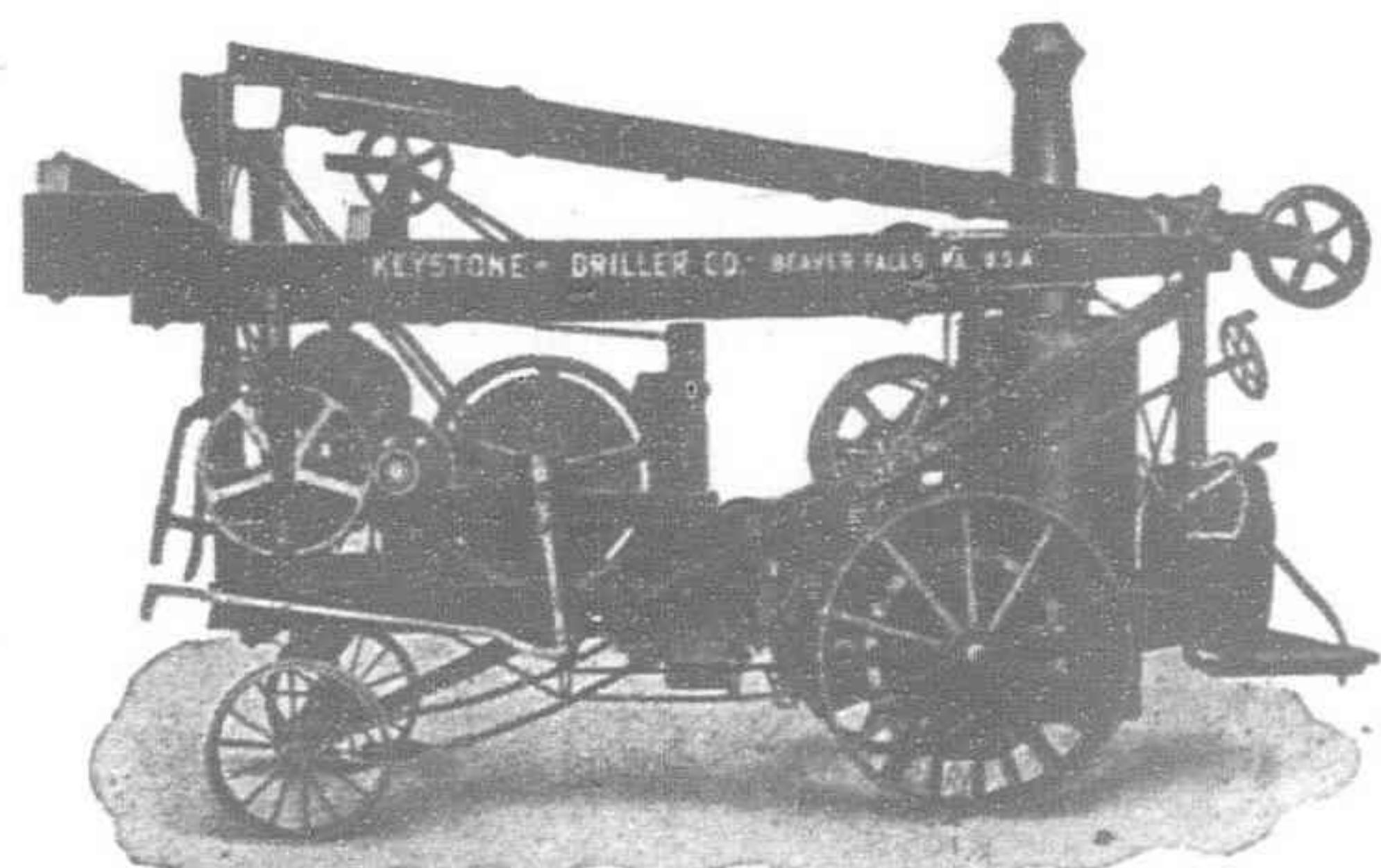
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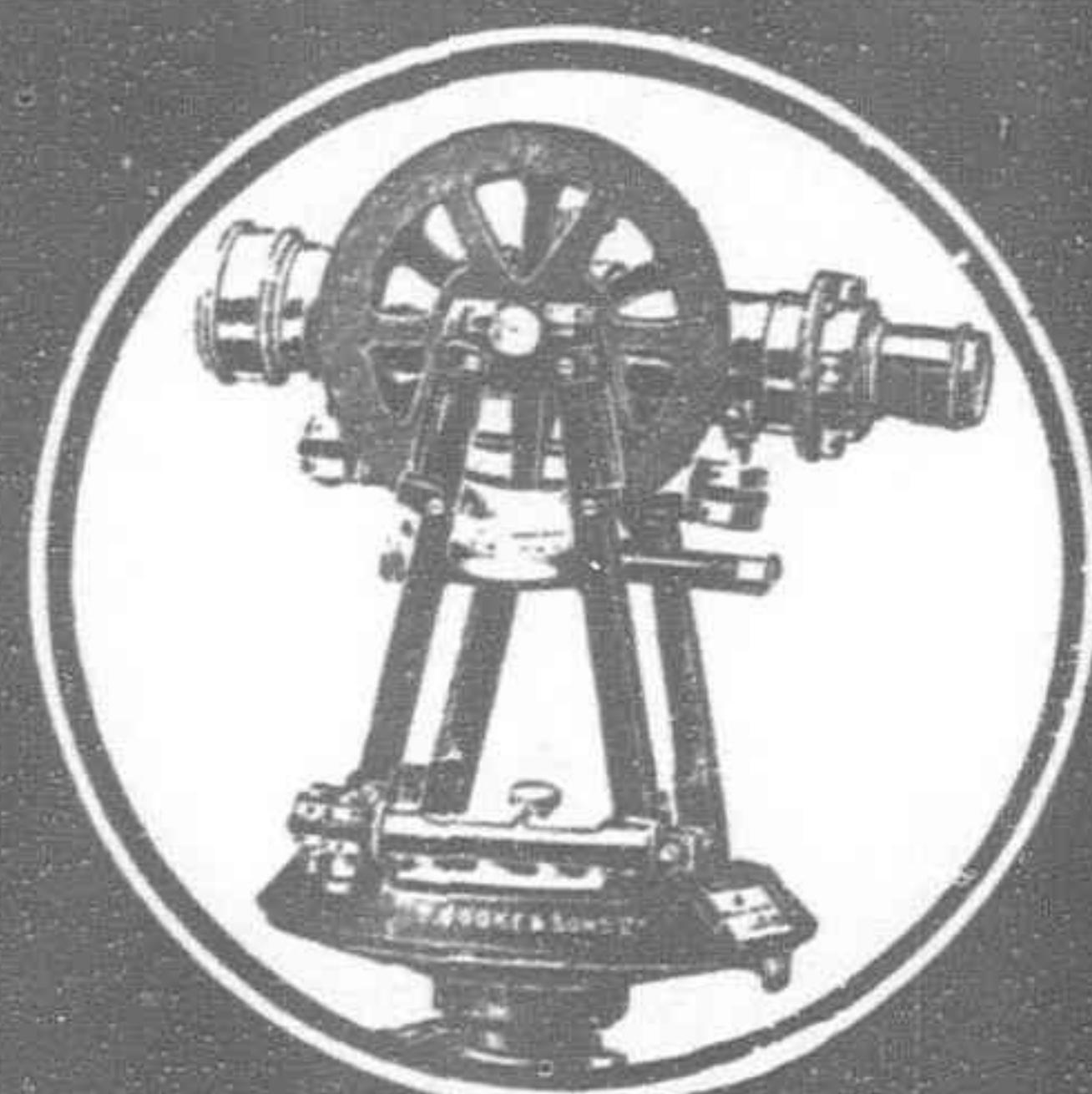
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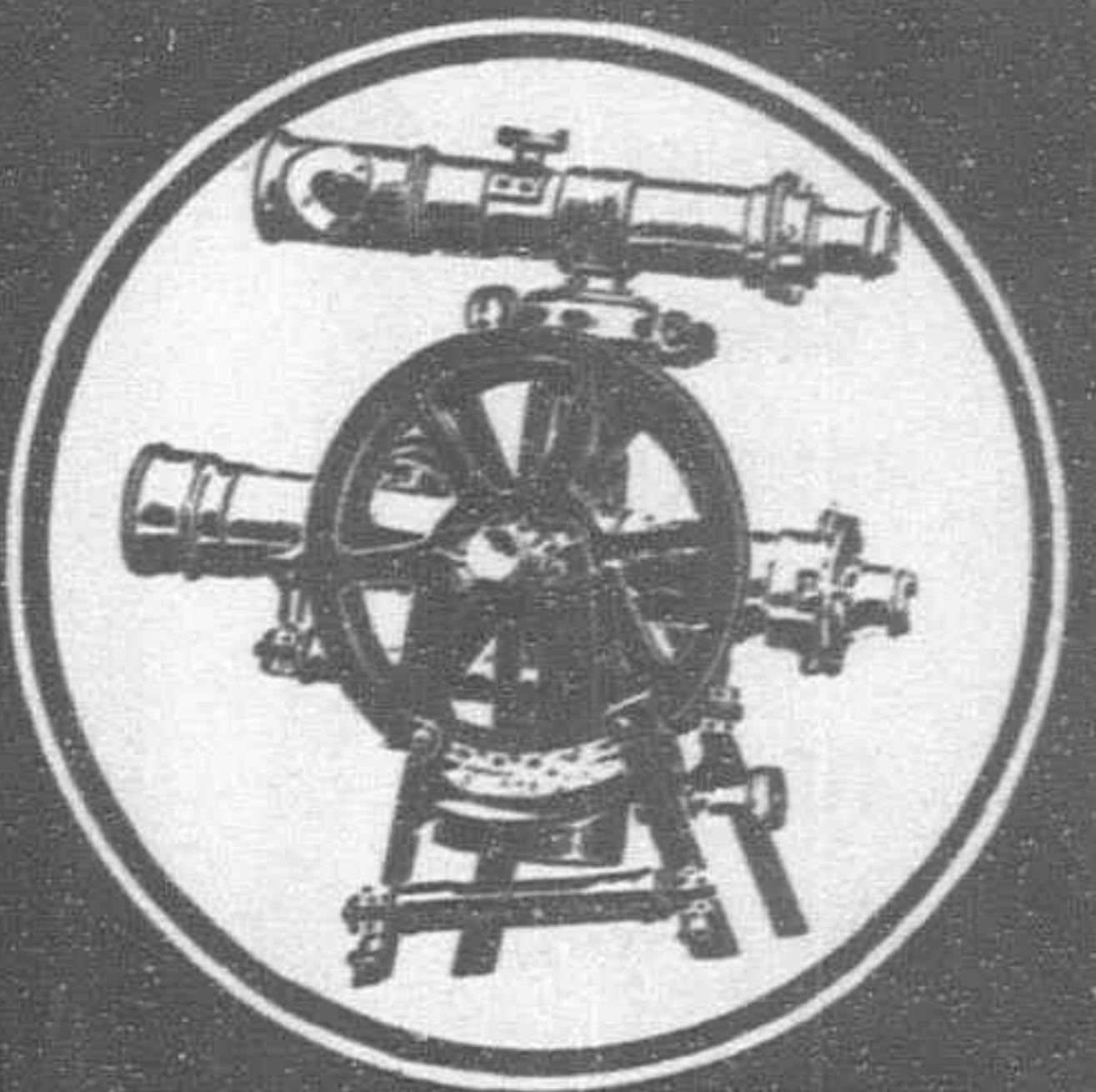
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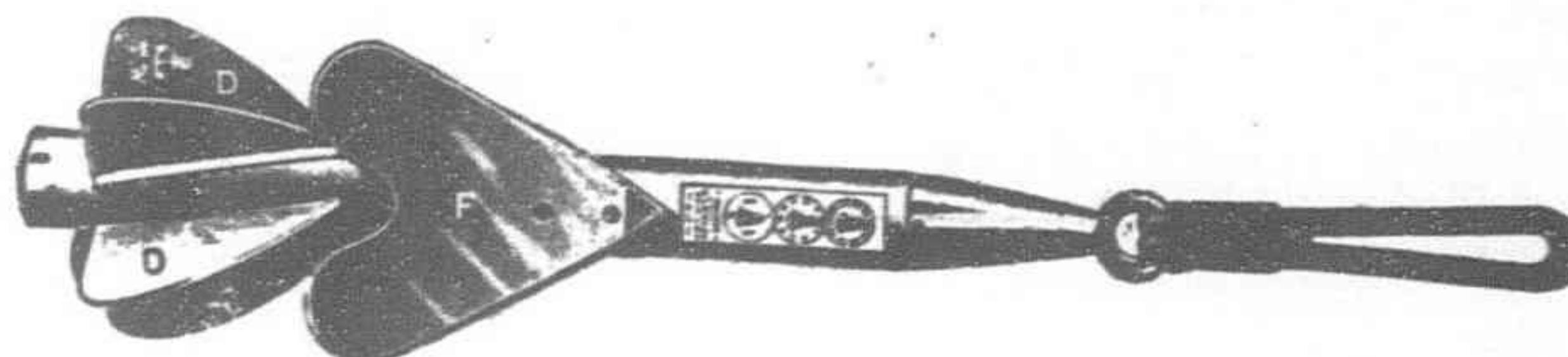
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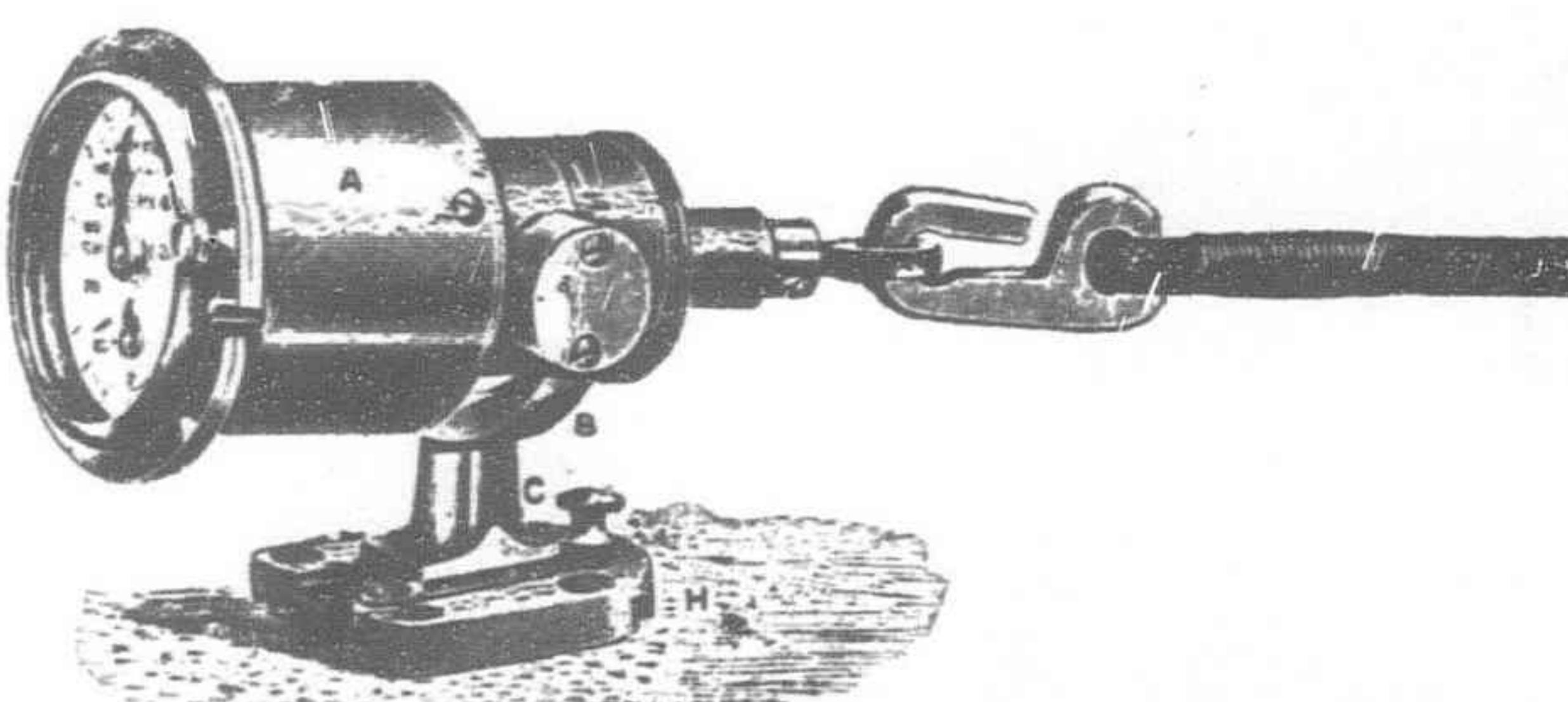
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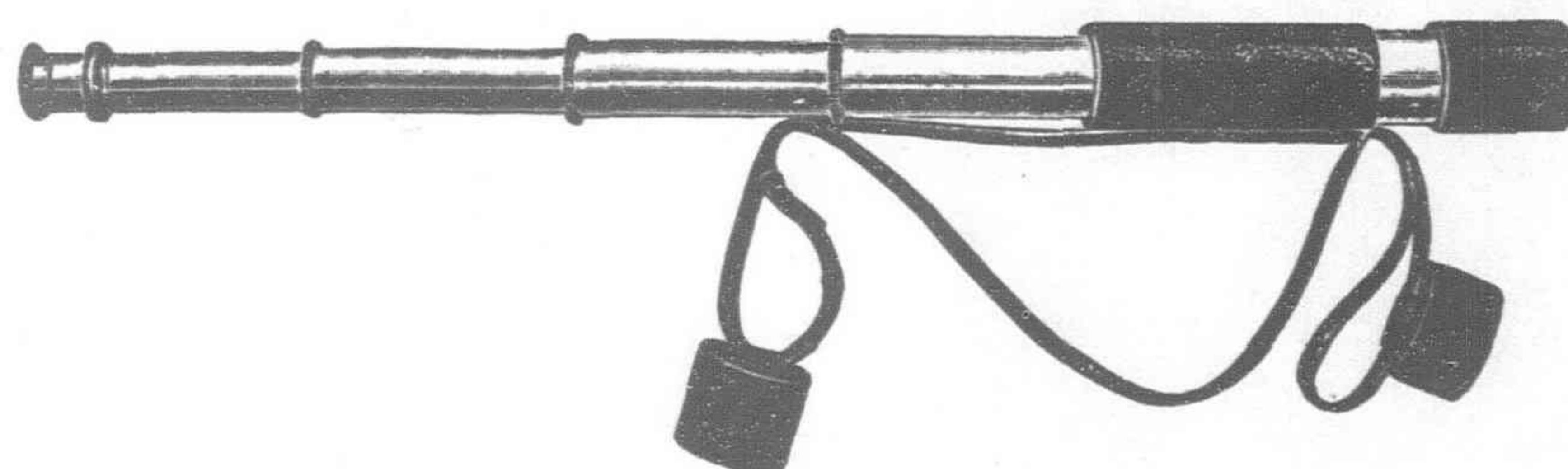
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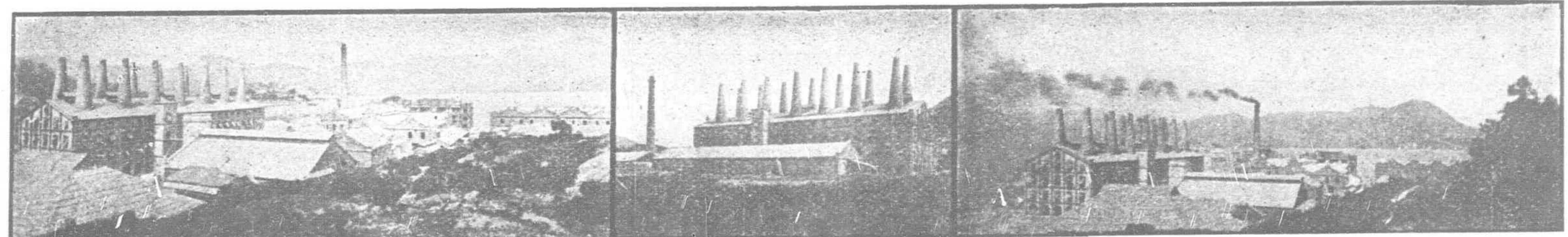
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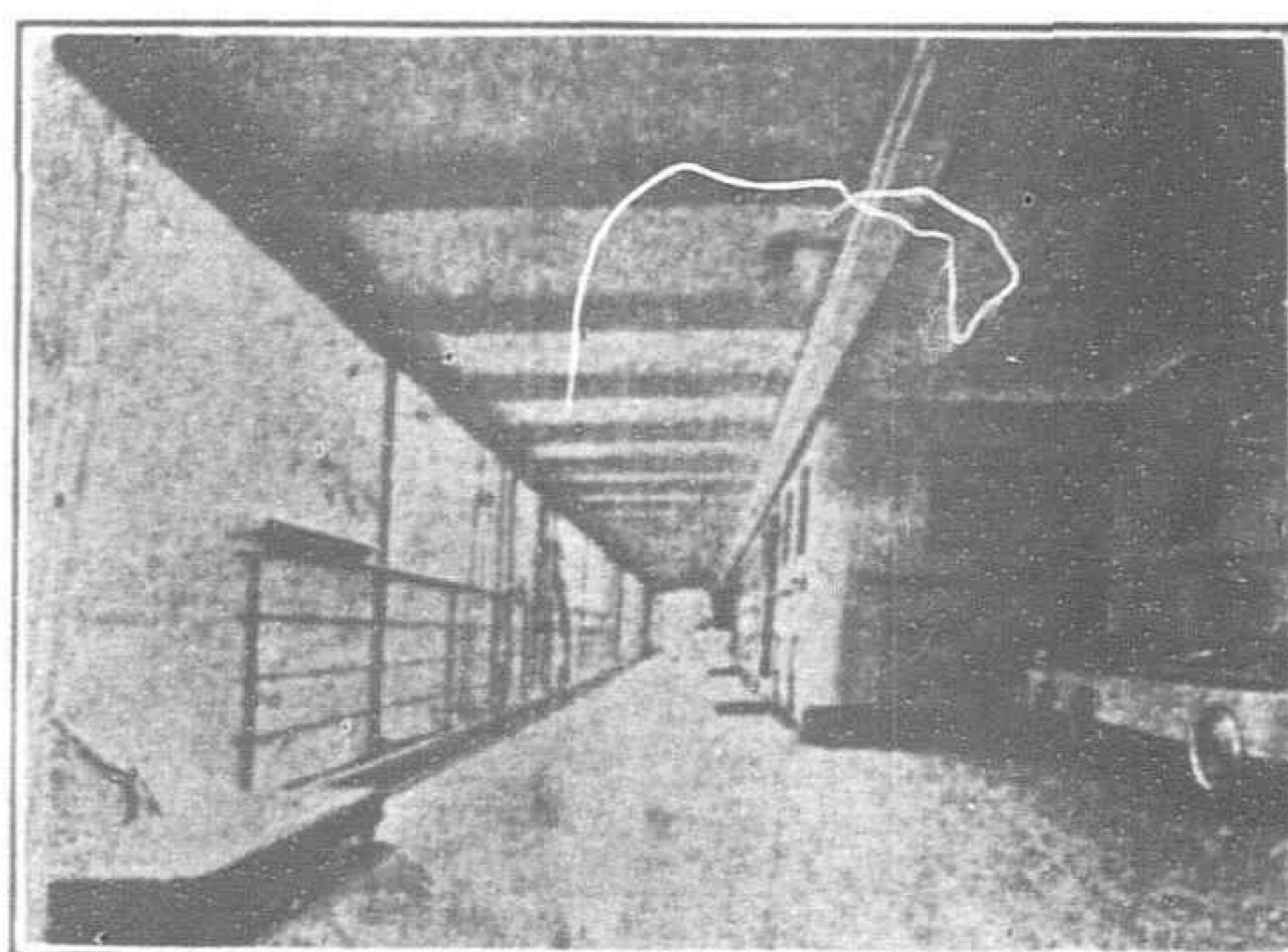
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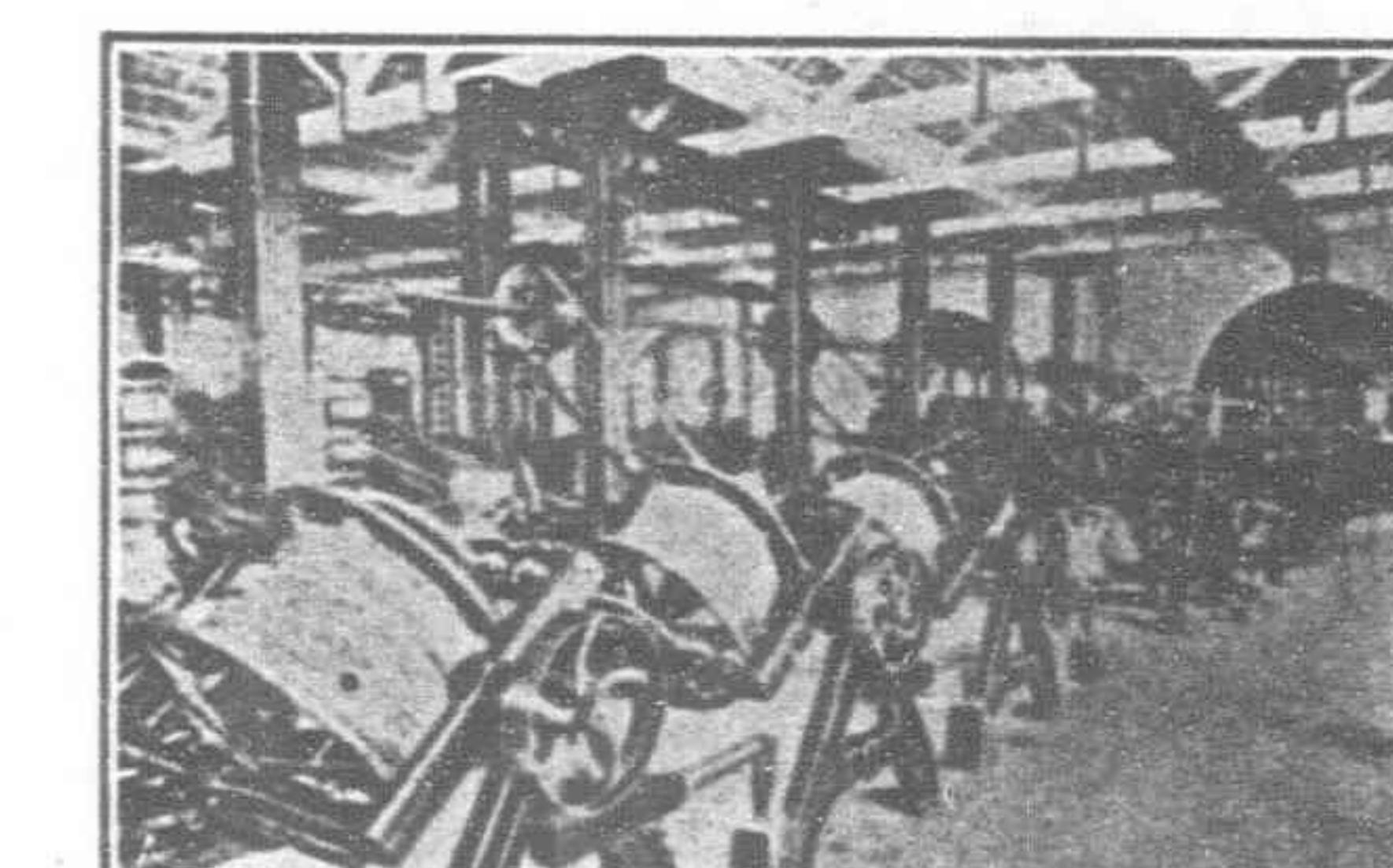
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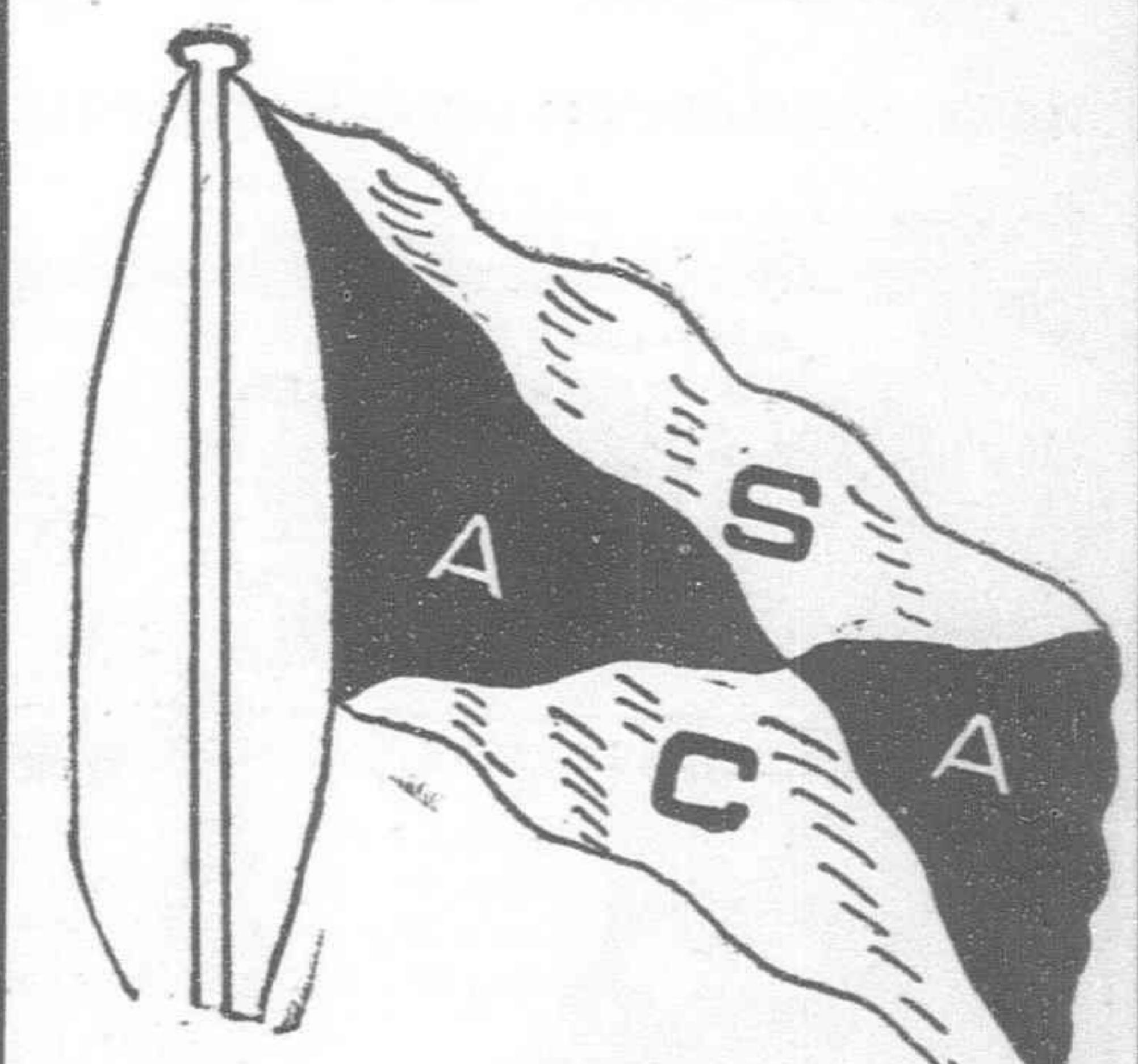
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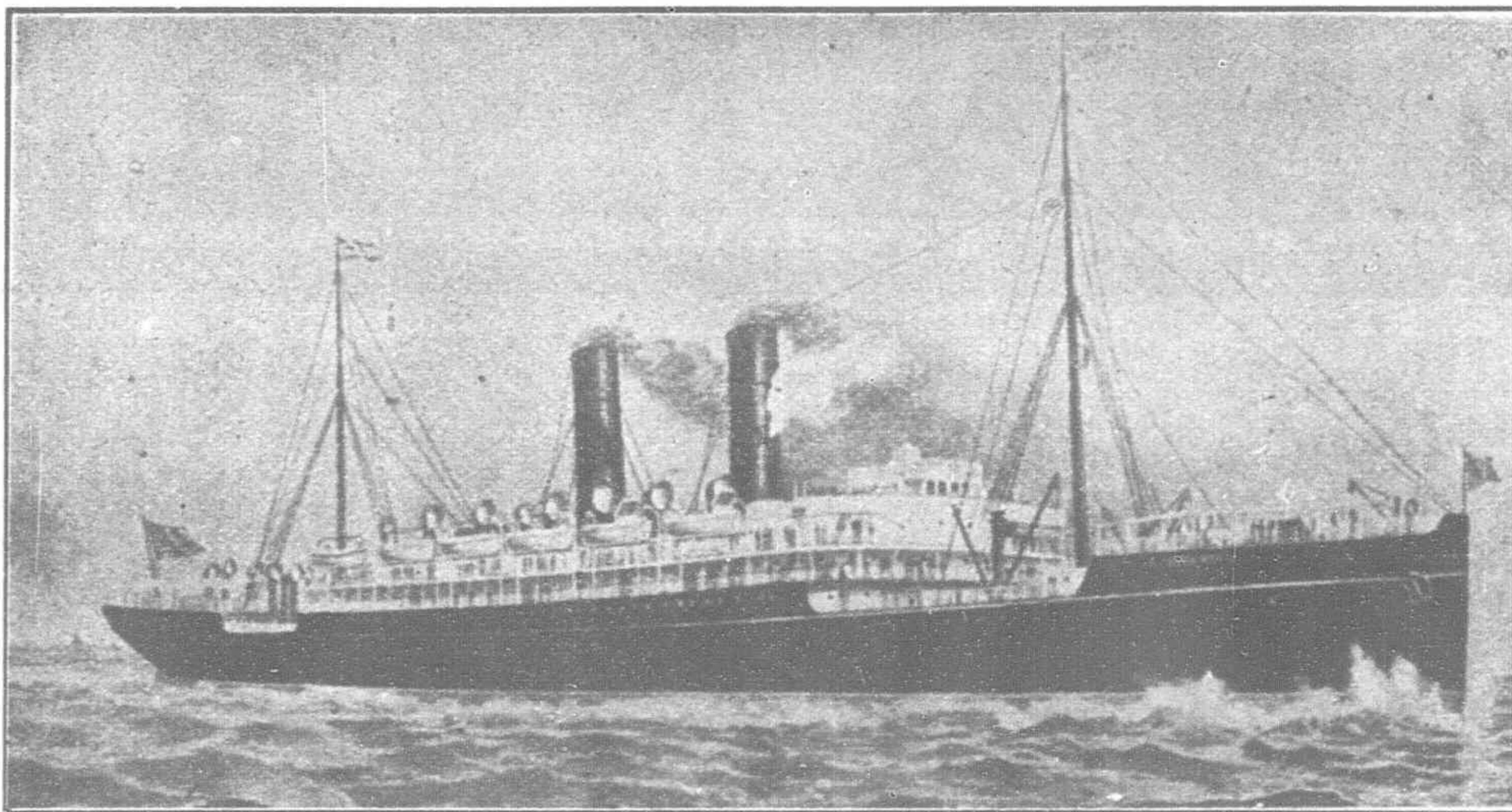
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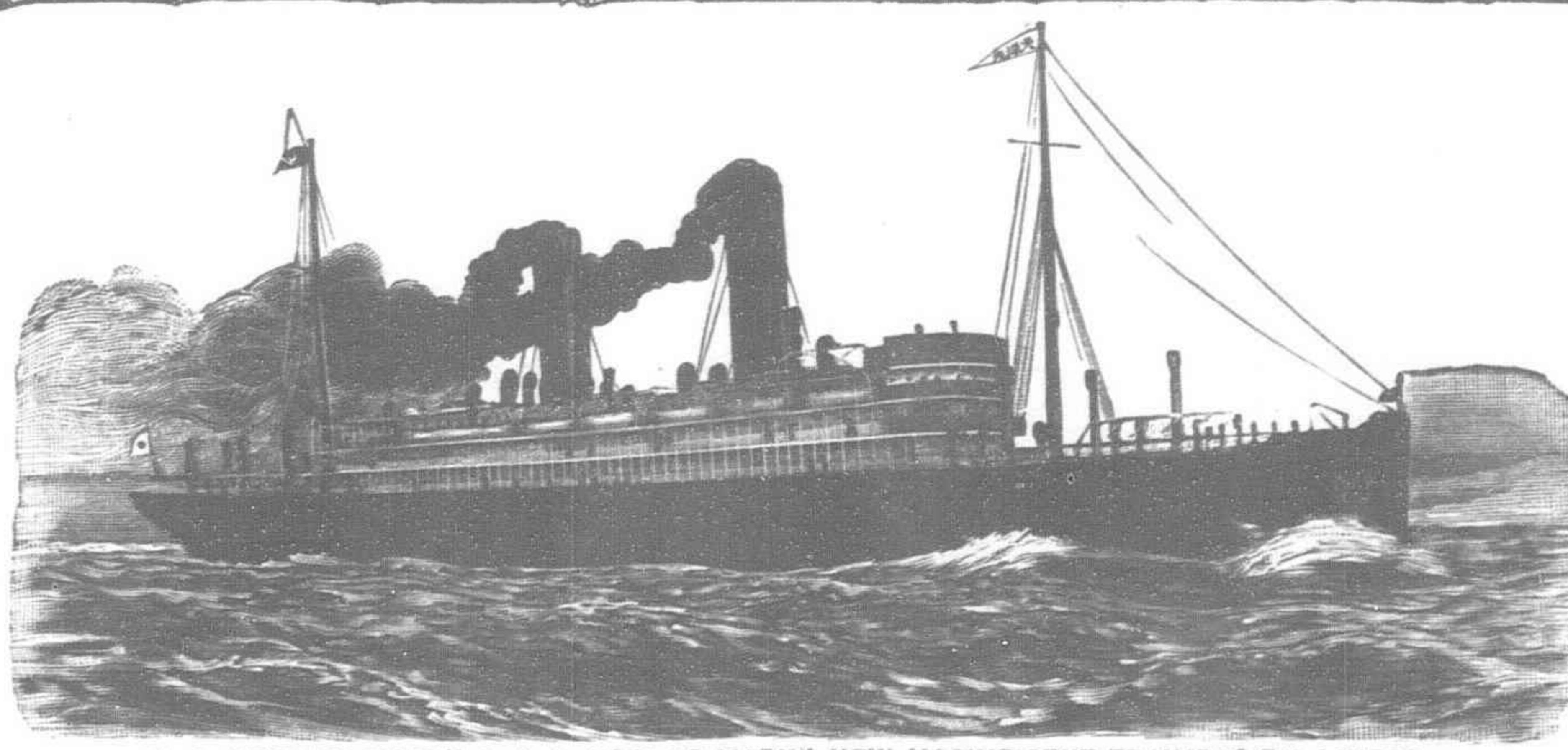
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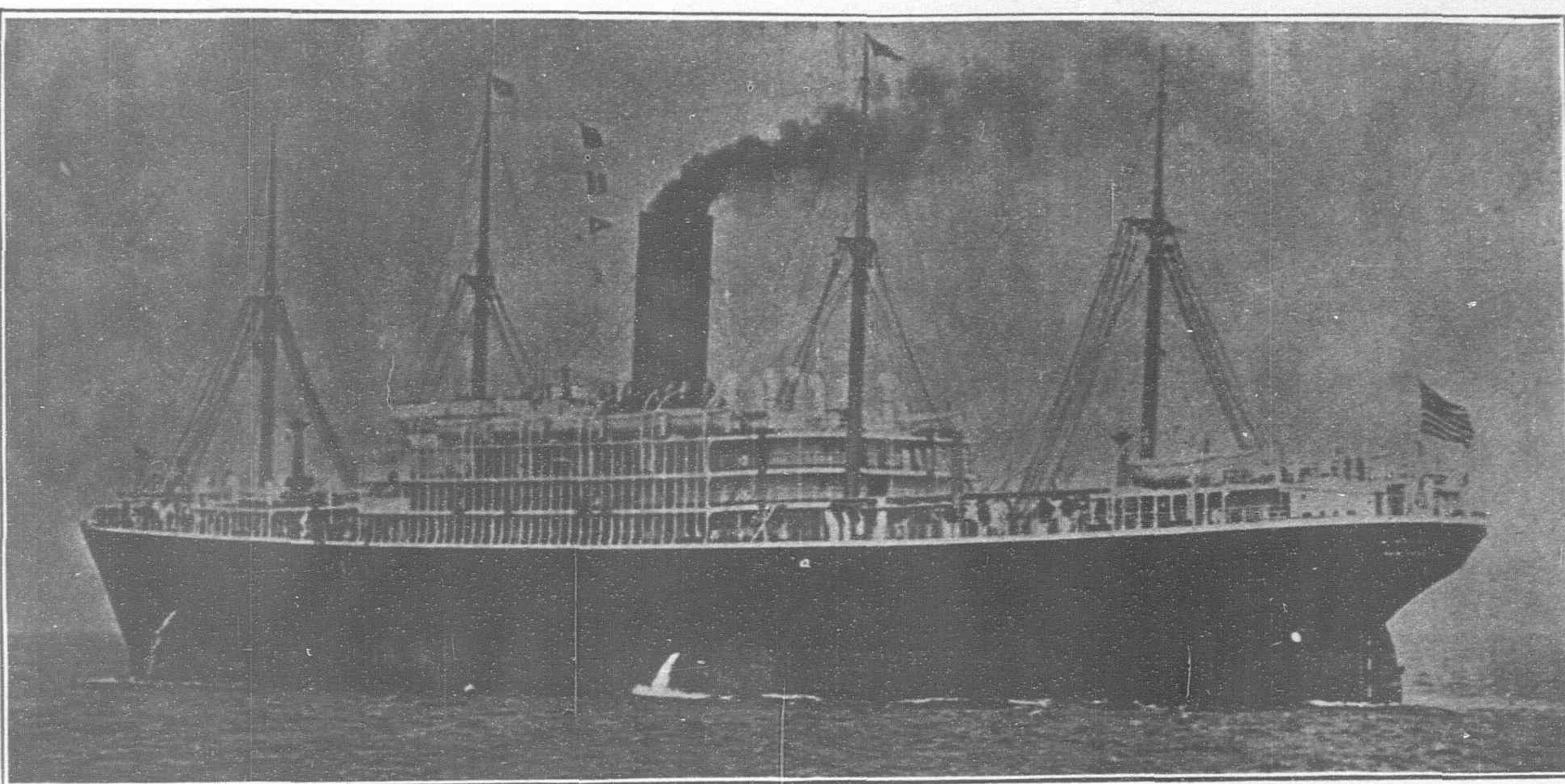
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March 2	Mar. 17	Mar. 21	Mar. 26	Mar. 28	Apr. 2

STEAMER	VOYAGE				
	HONKONG	SHANGHAI	NAGASAKI	KOBE	YOKOHAMA
MINNESOTA.	Apr. 17	Apr. 20	Apr. 22	Apr. 26	Apr. 28

TO SEATTLE 1908

LEAVE					ARRIVE
HONKONG	SHANGHAI	NAGASAKI	KOBE	YOKOHAMA	SEATTLE
Apr. 17	Apr. 20	Apr. 22	Apr. 26	Apr. 28	May 15

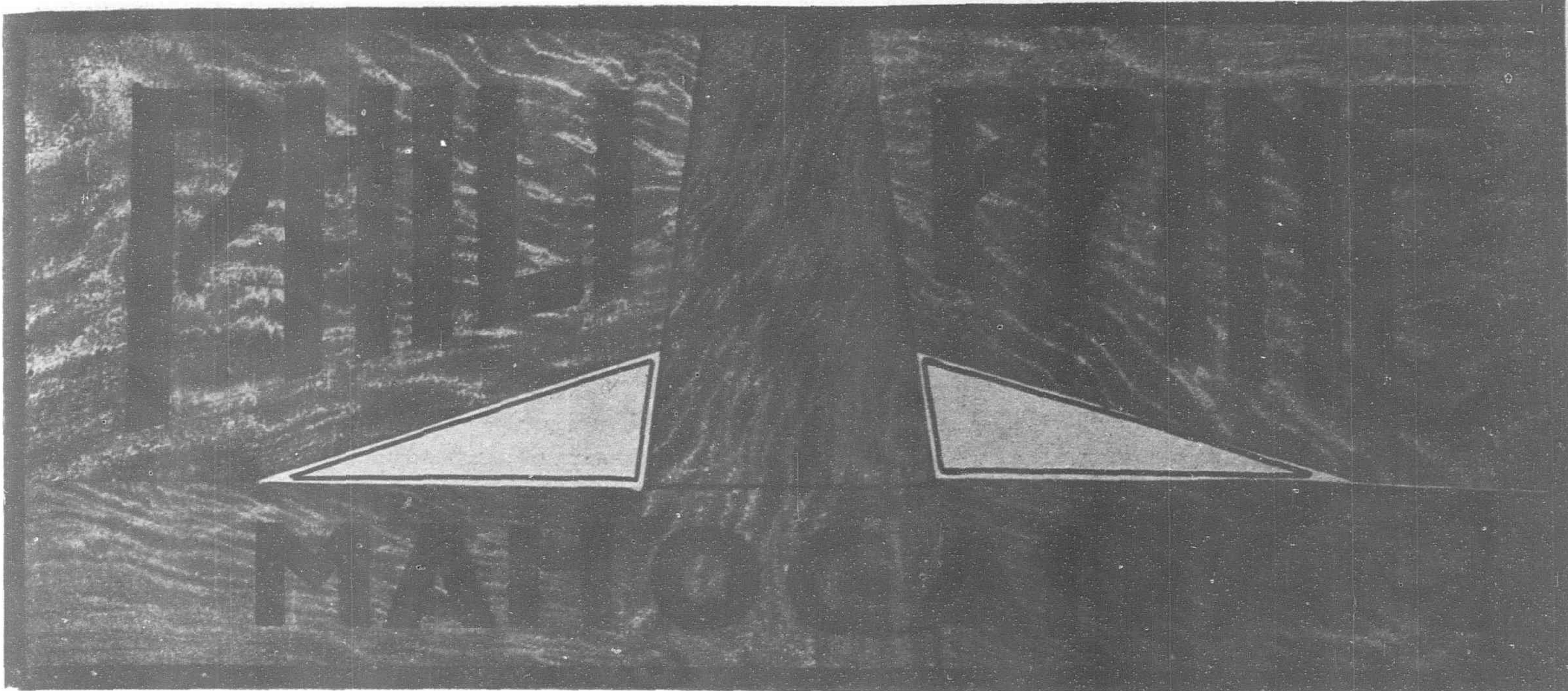
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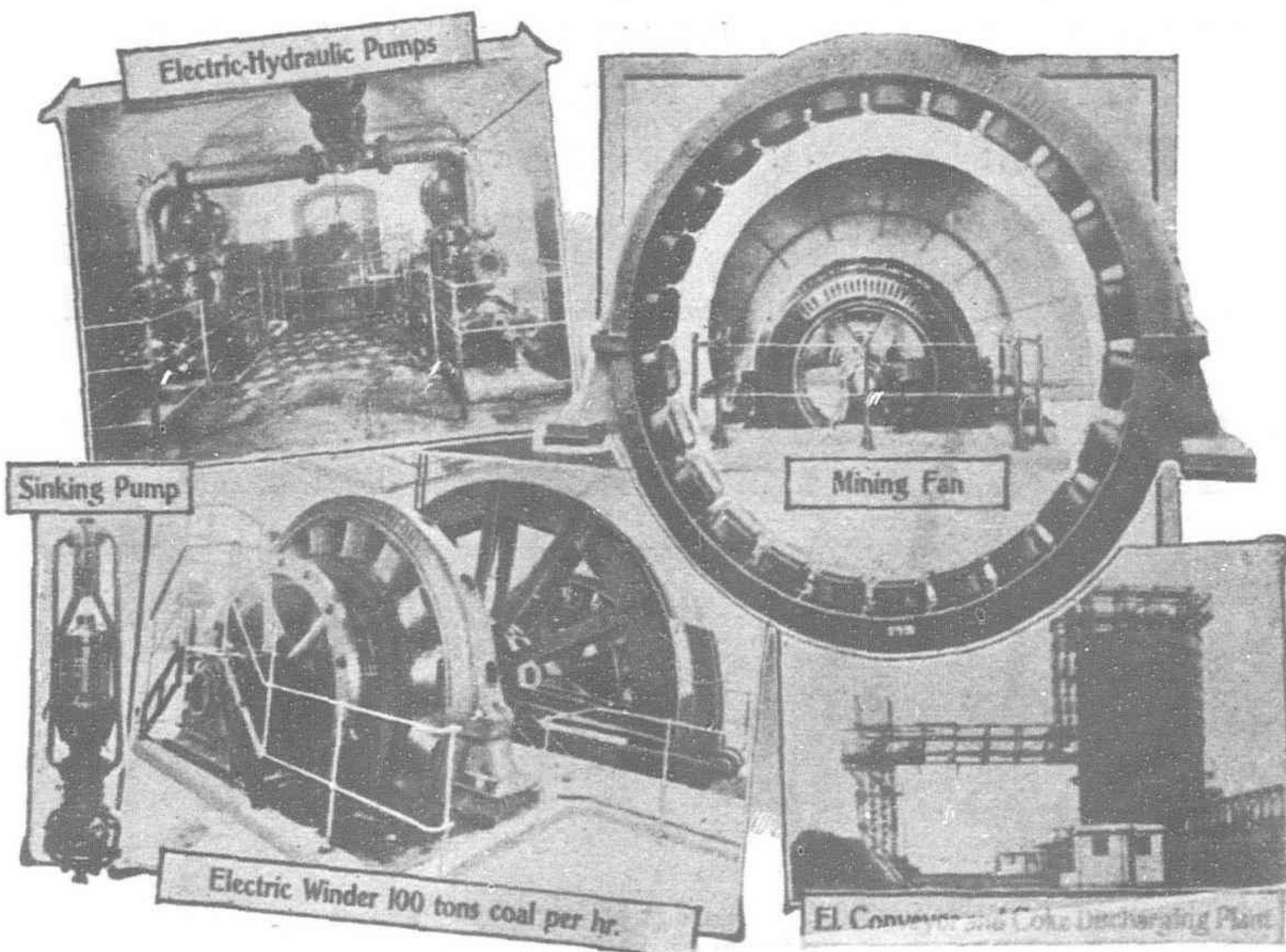
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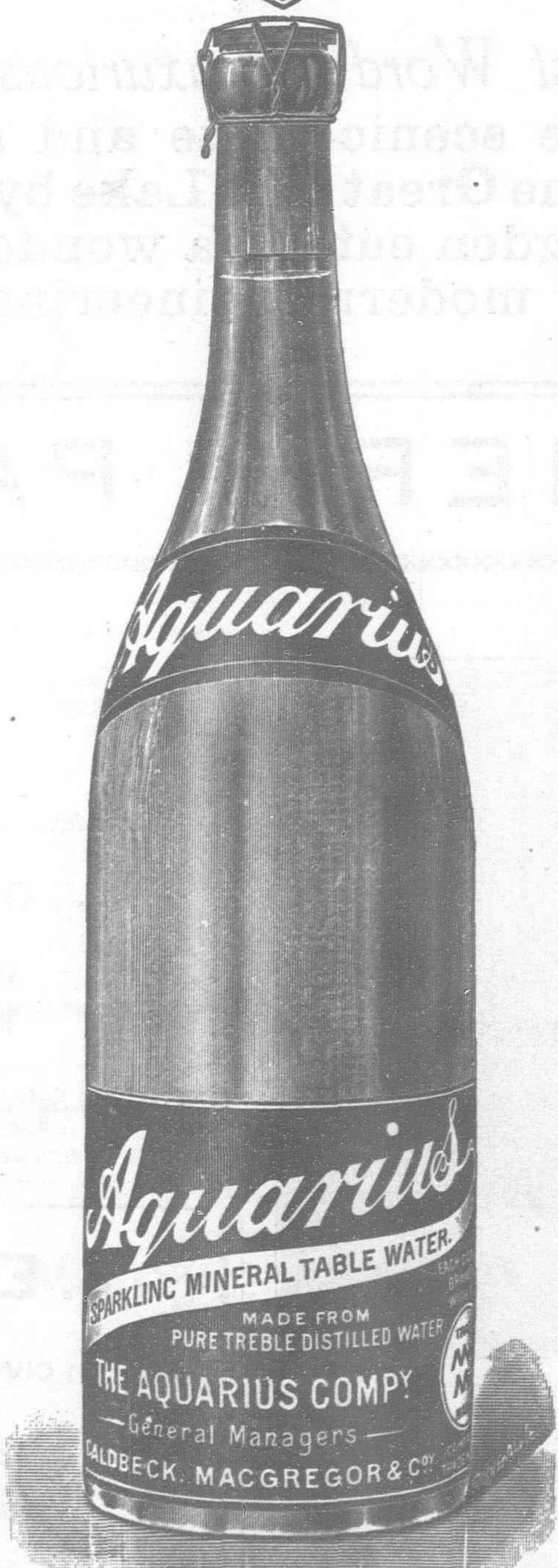
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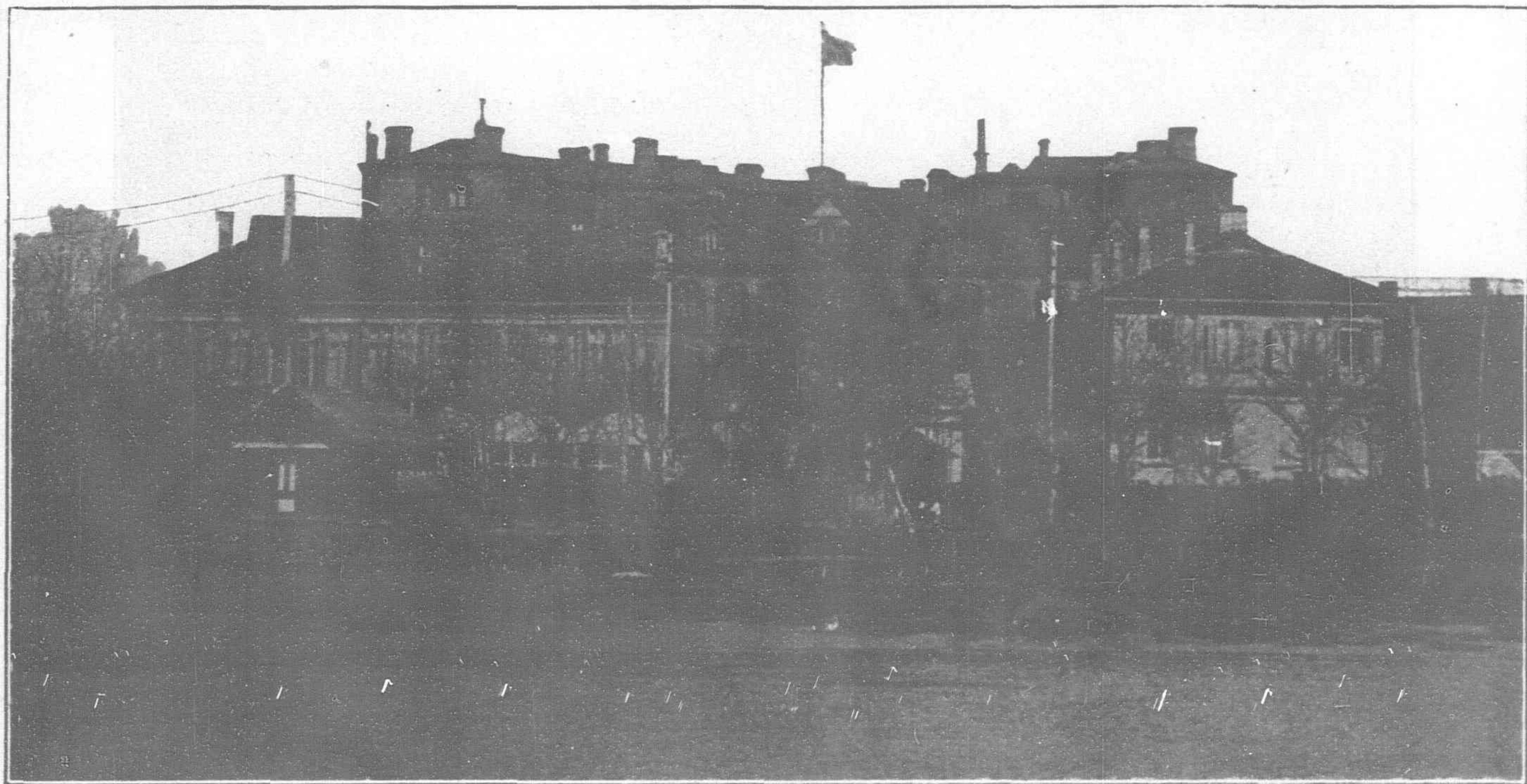
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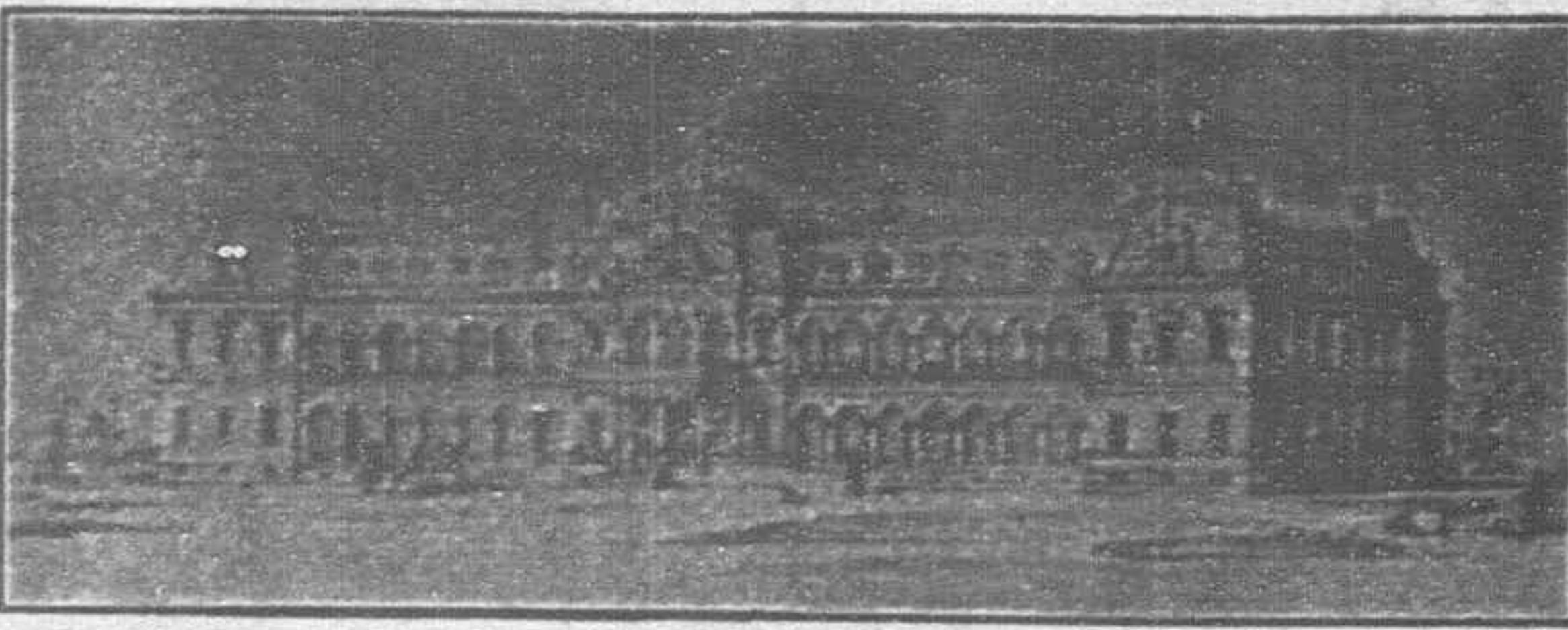
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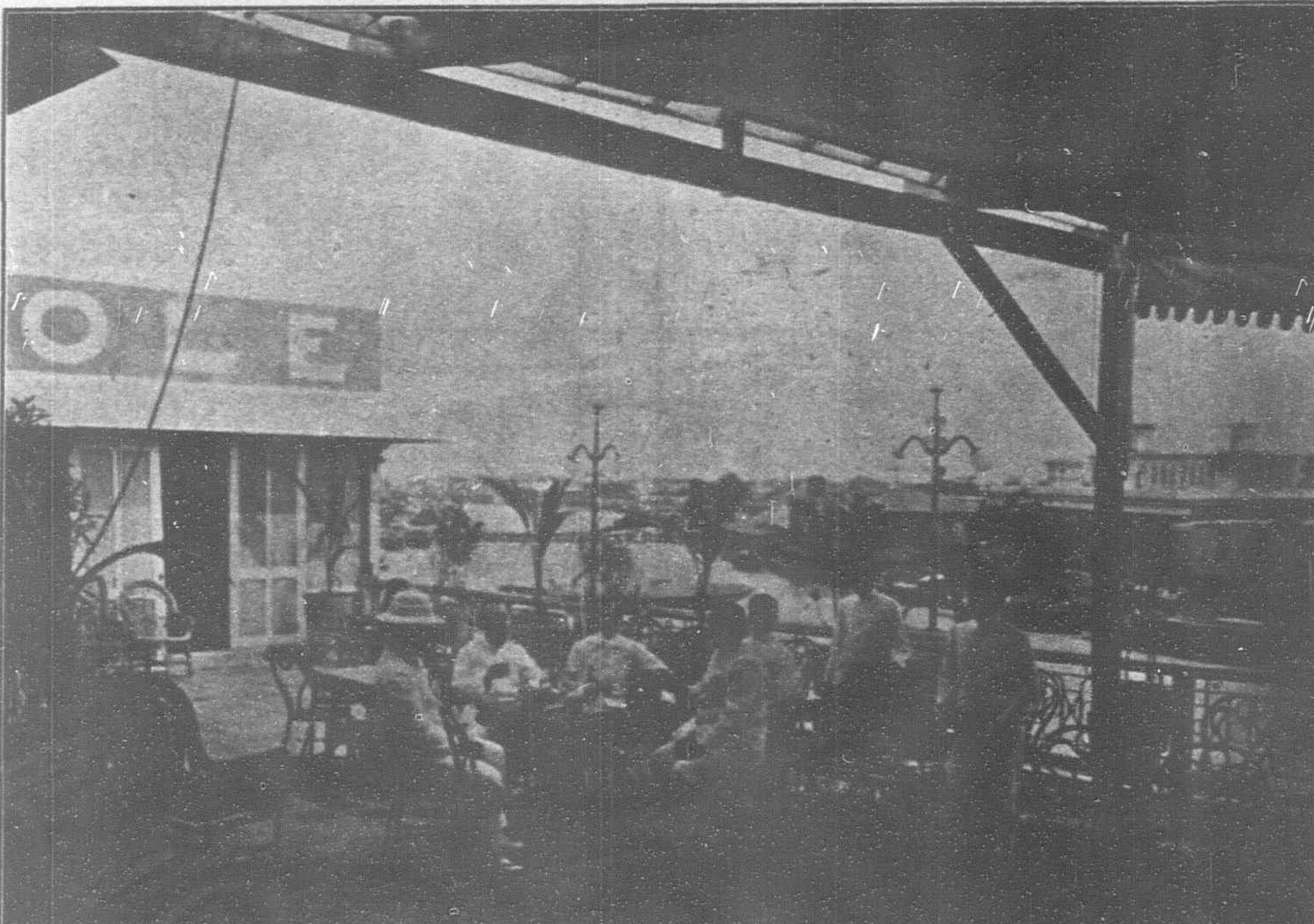
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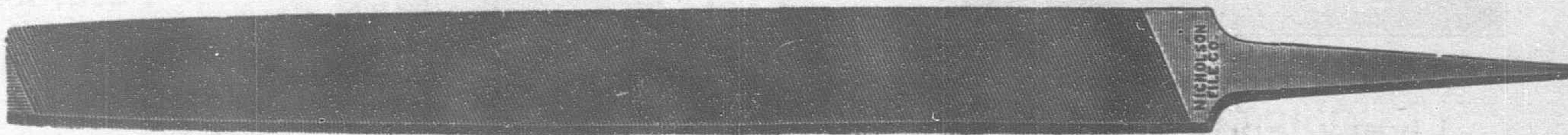
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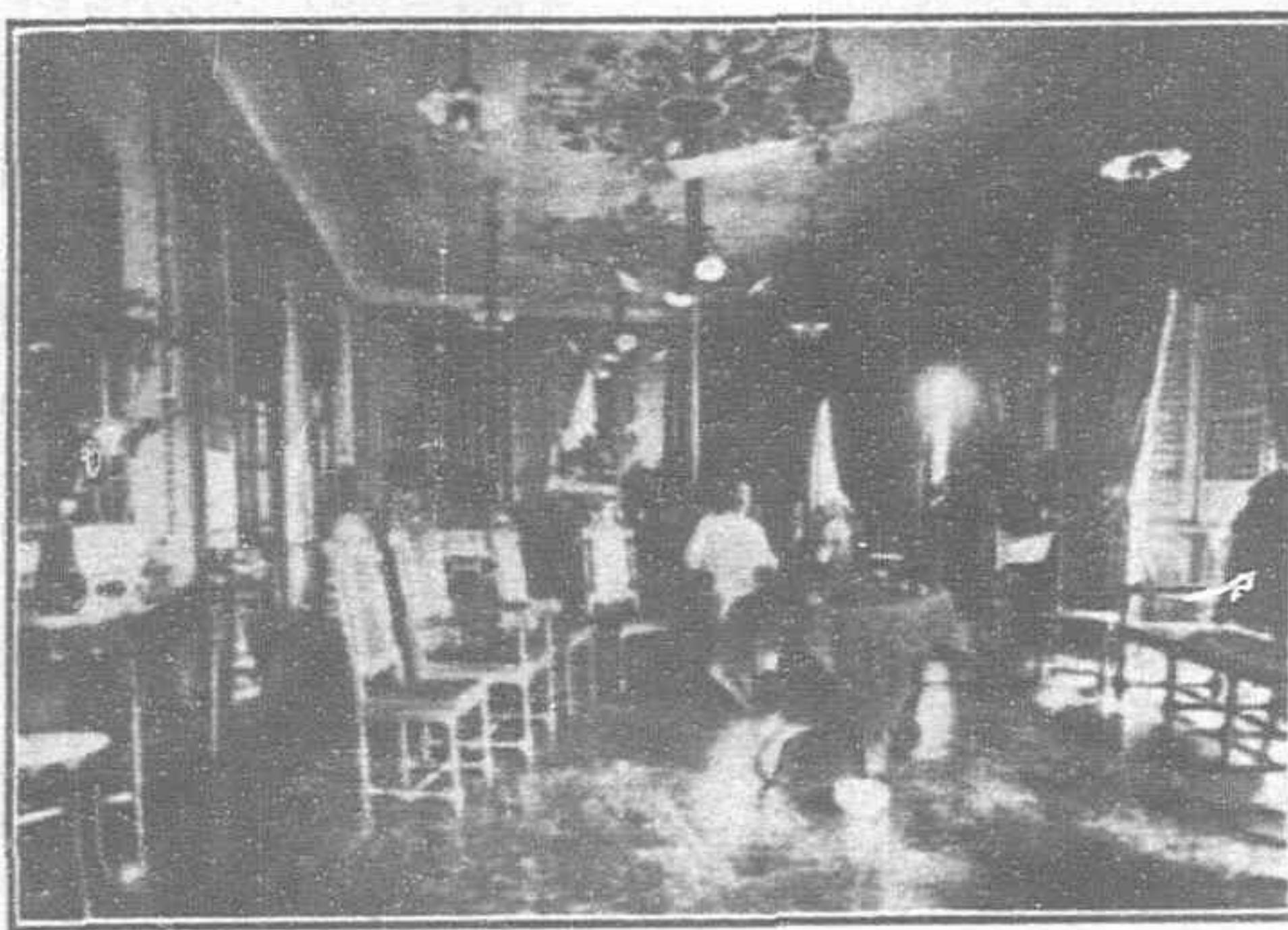
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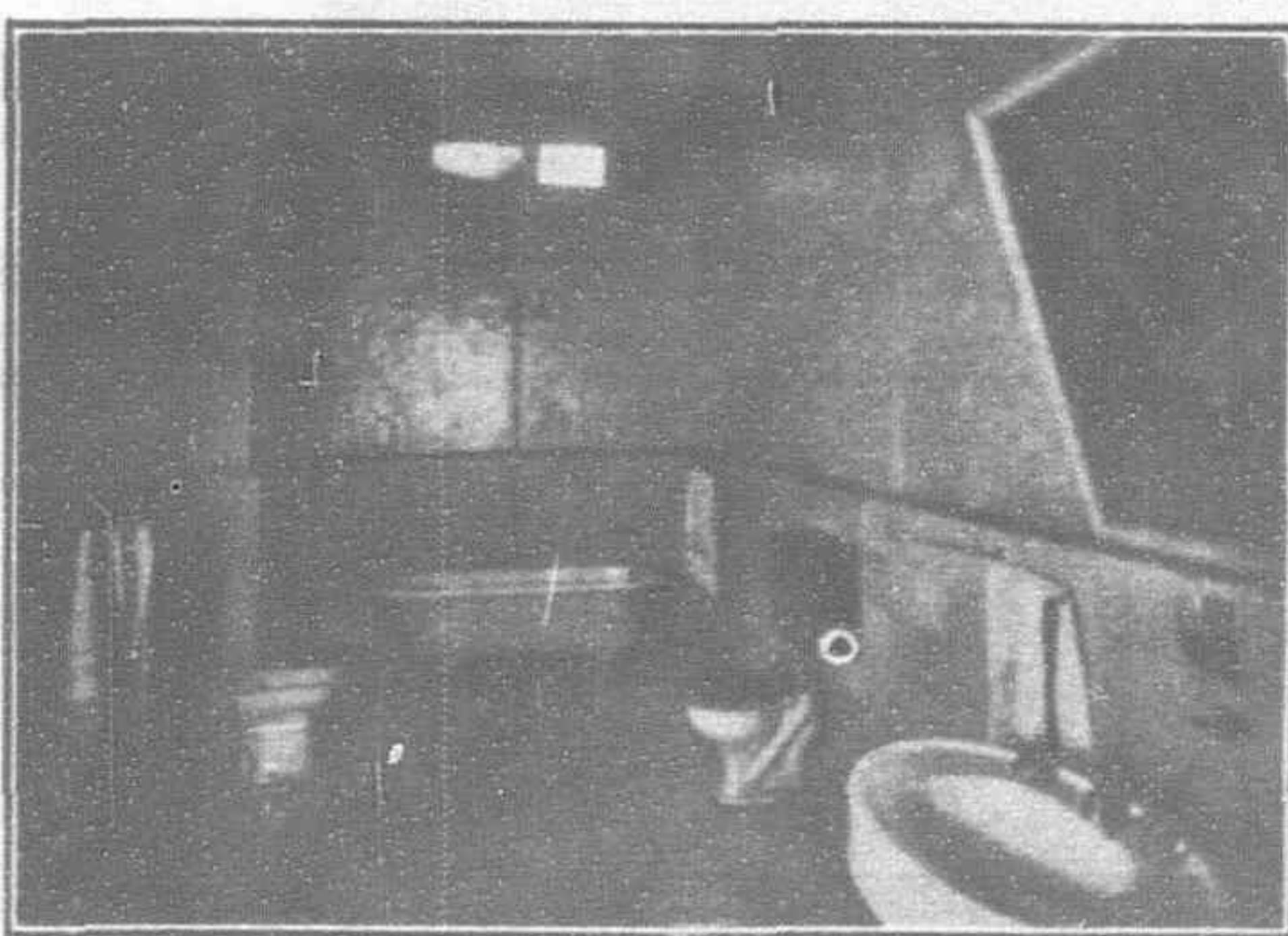
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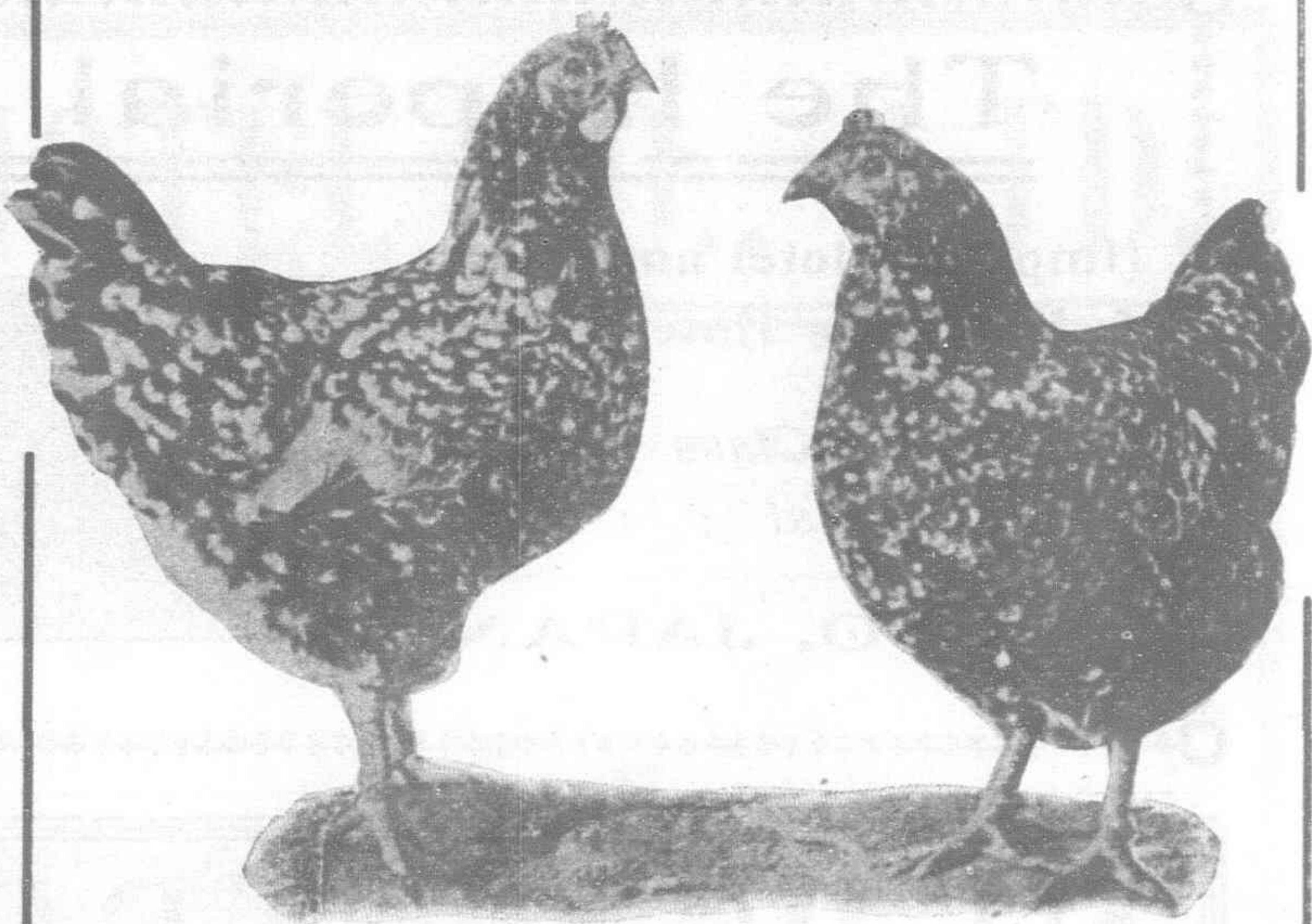
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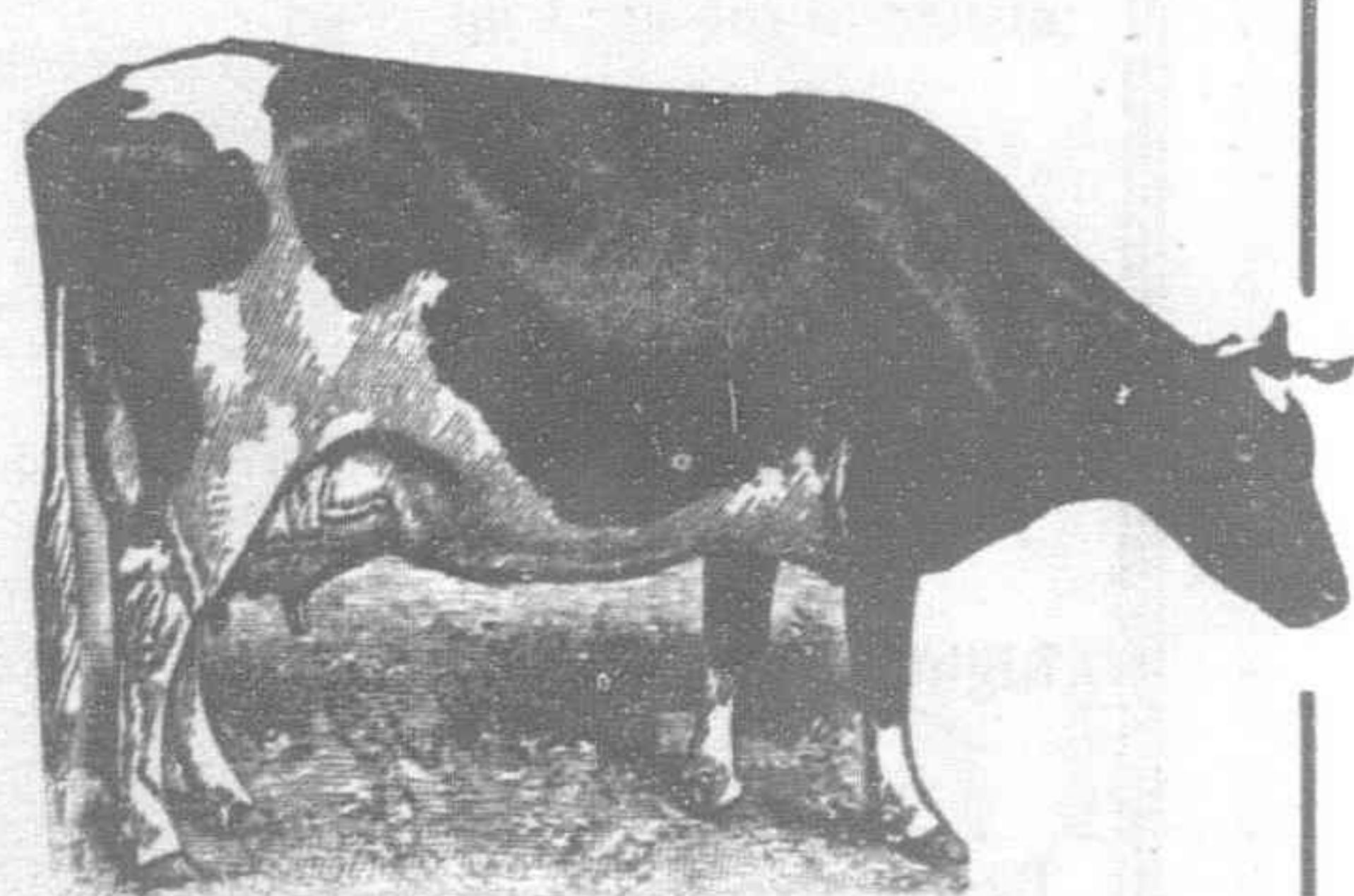
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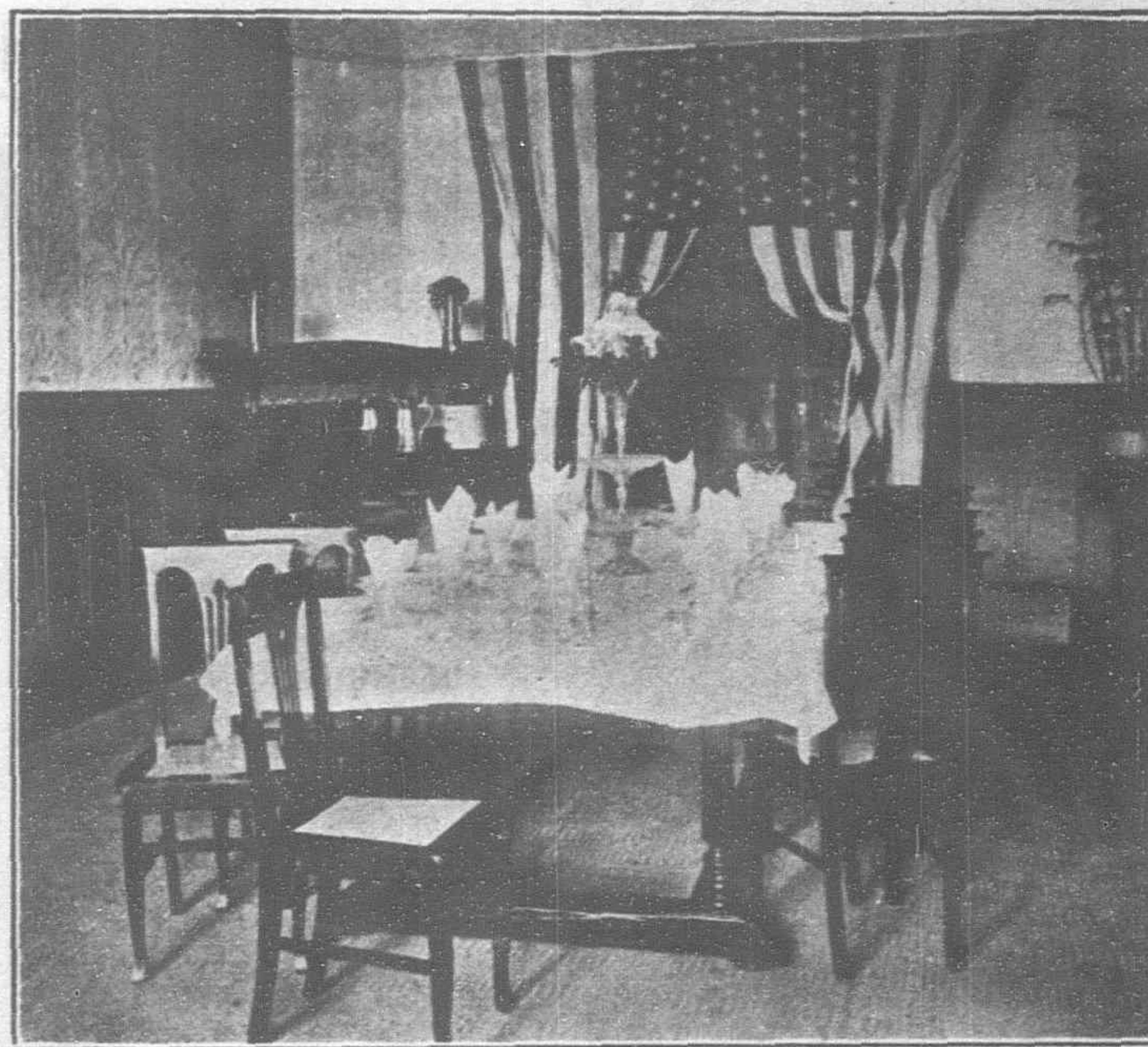
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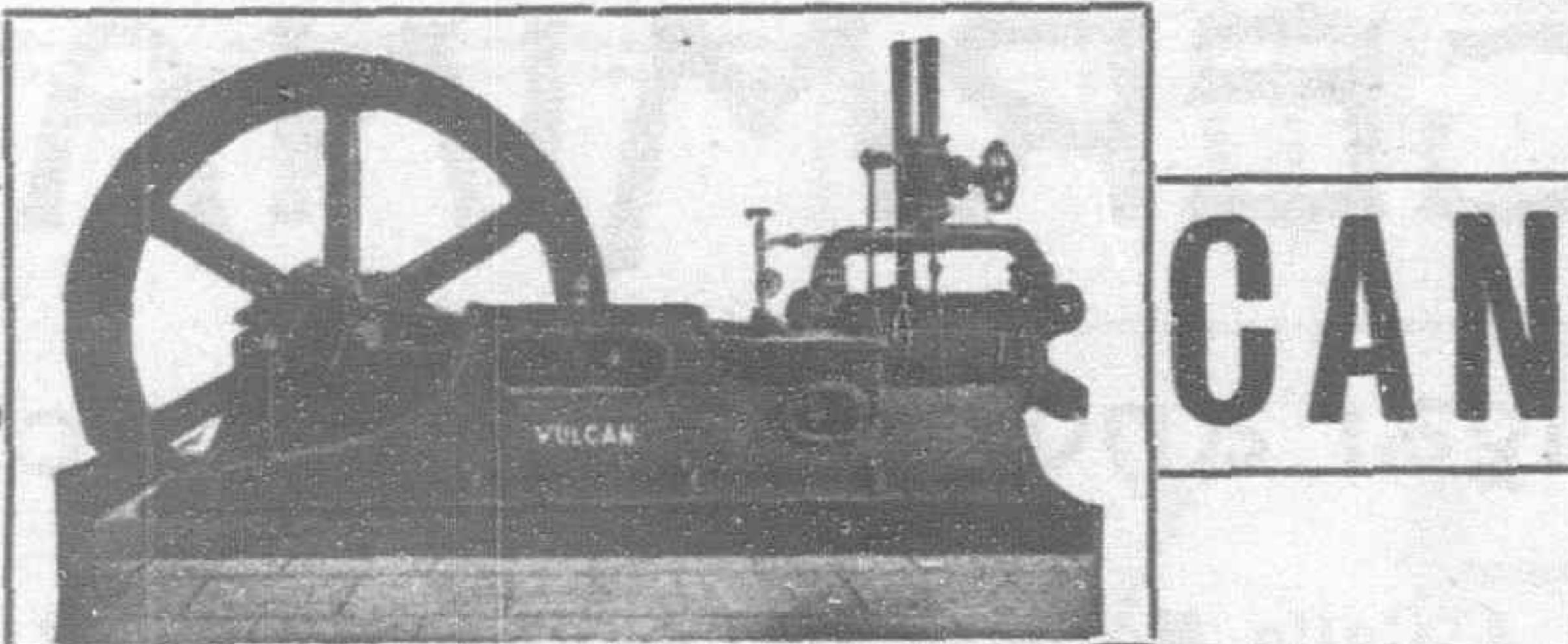
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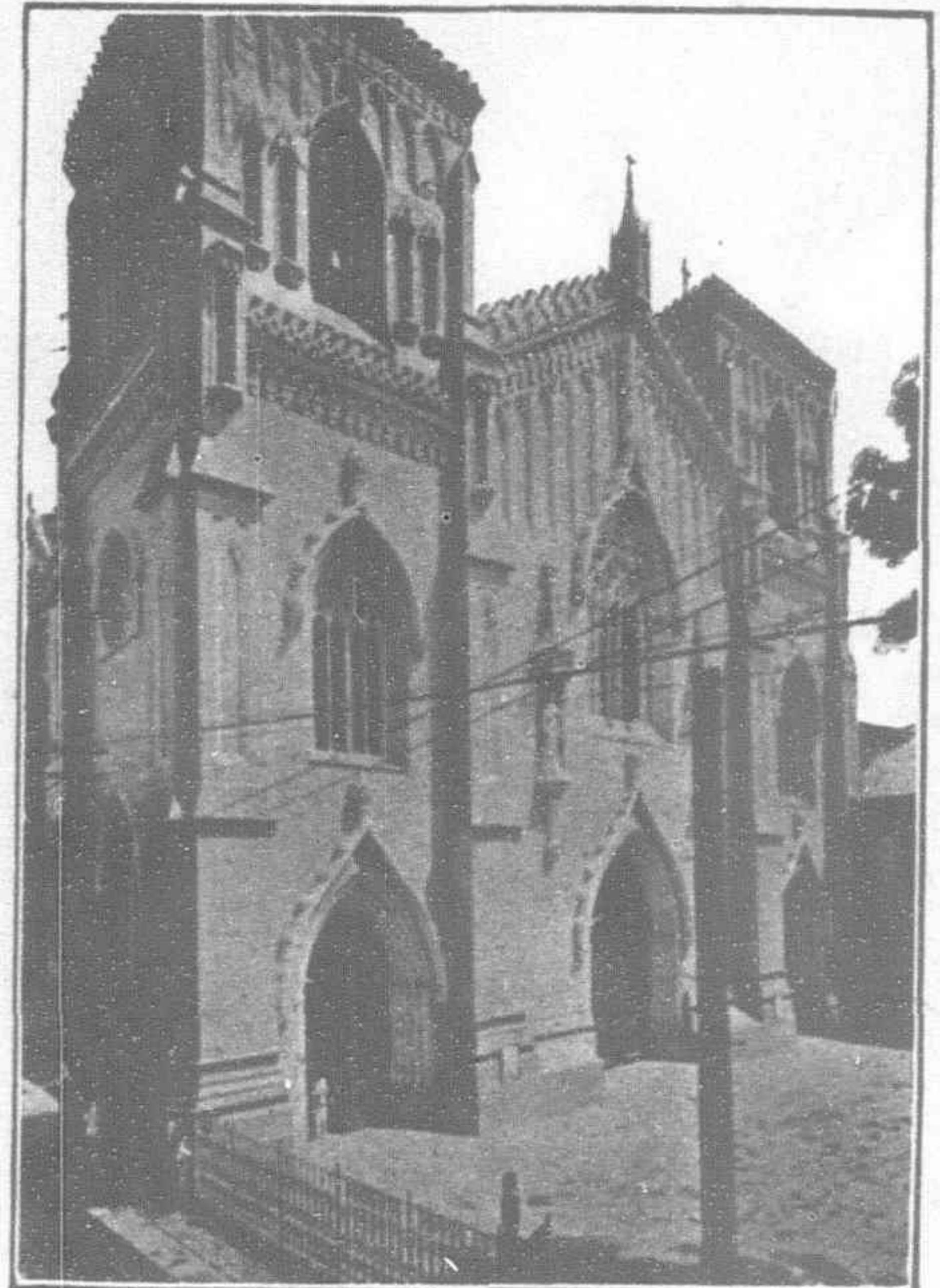
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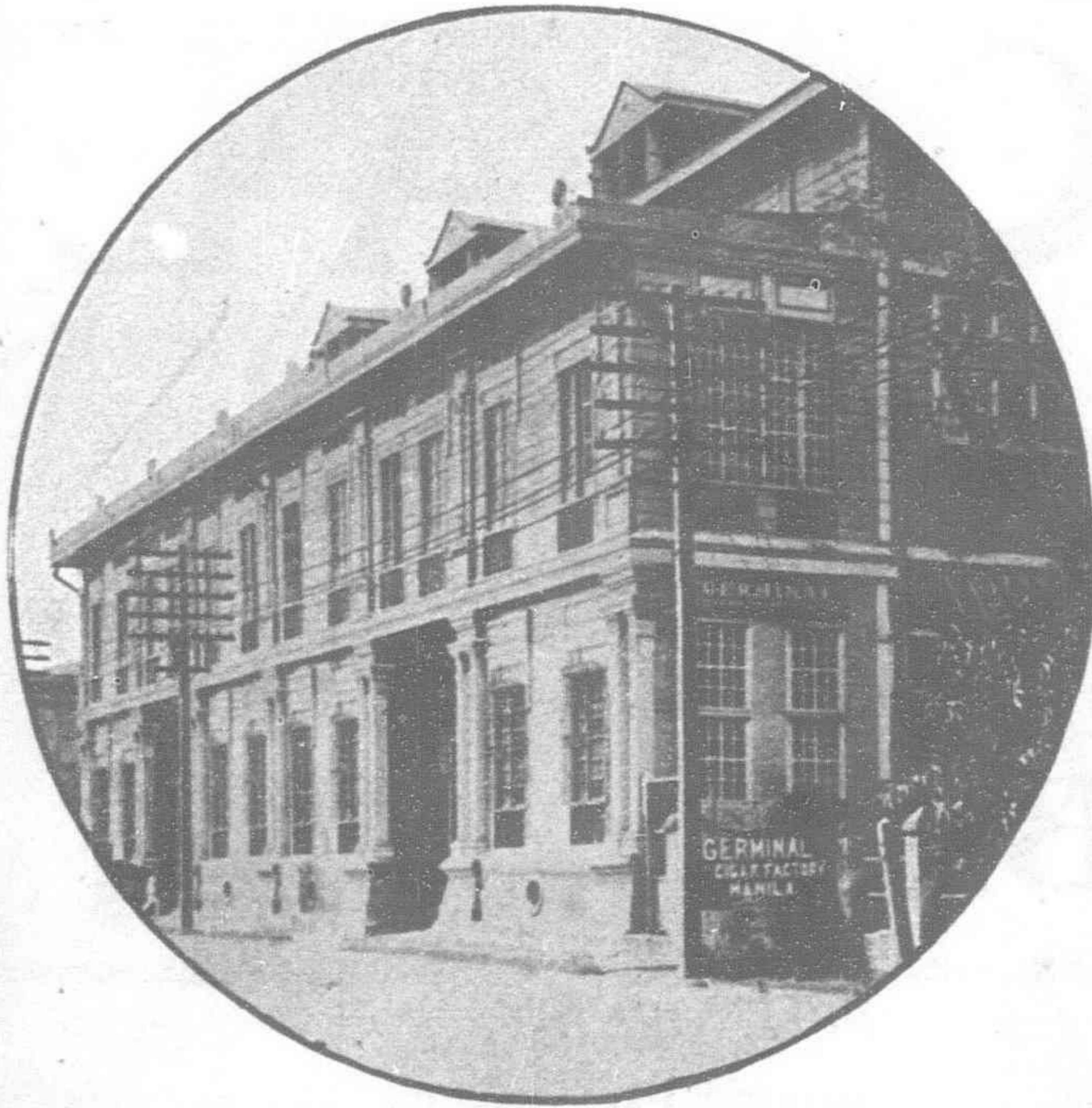
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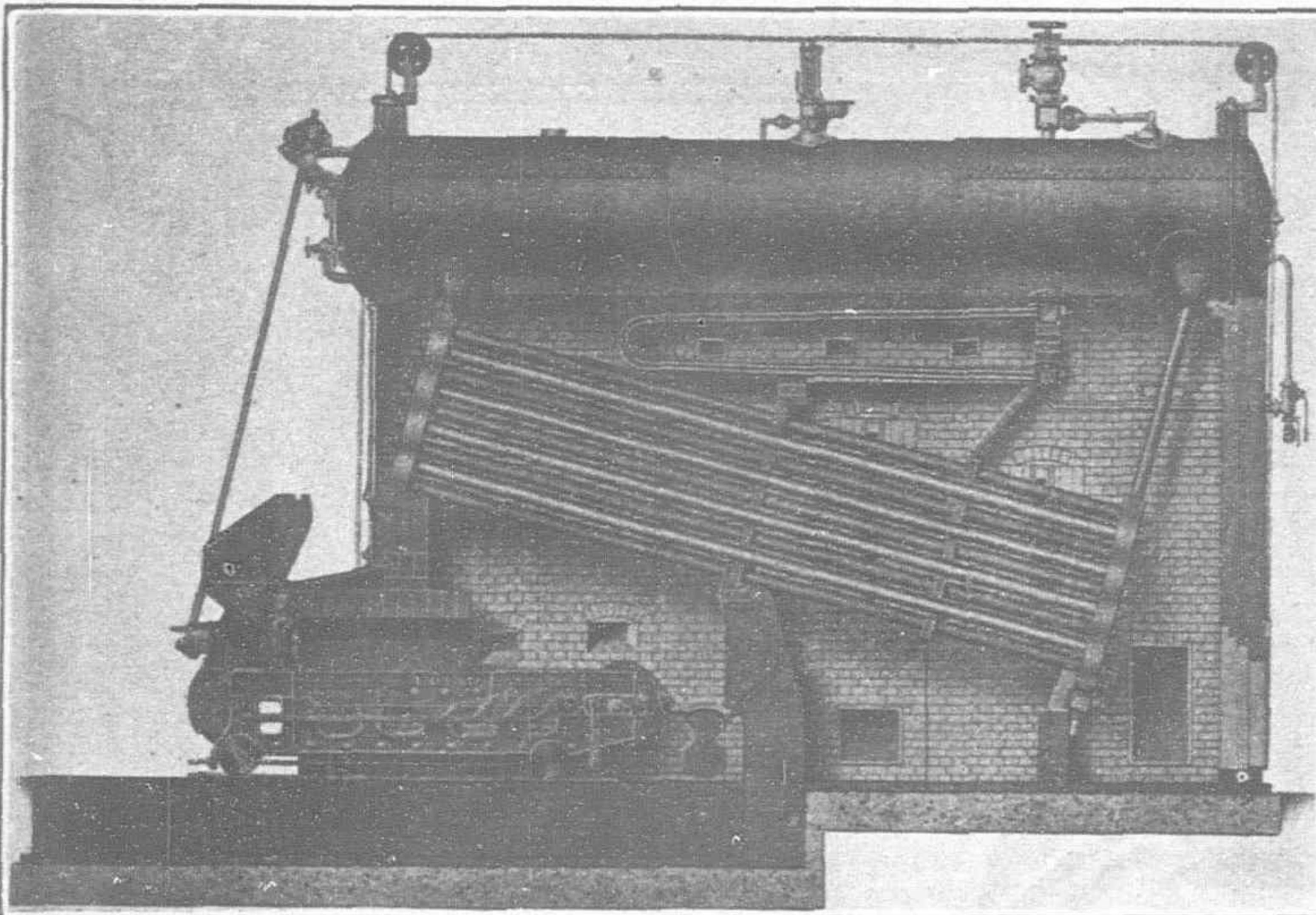
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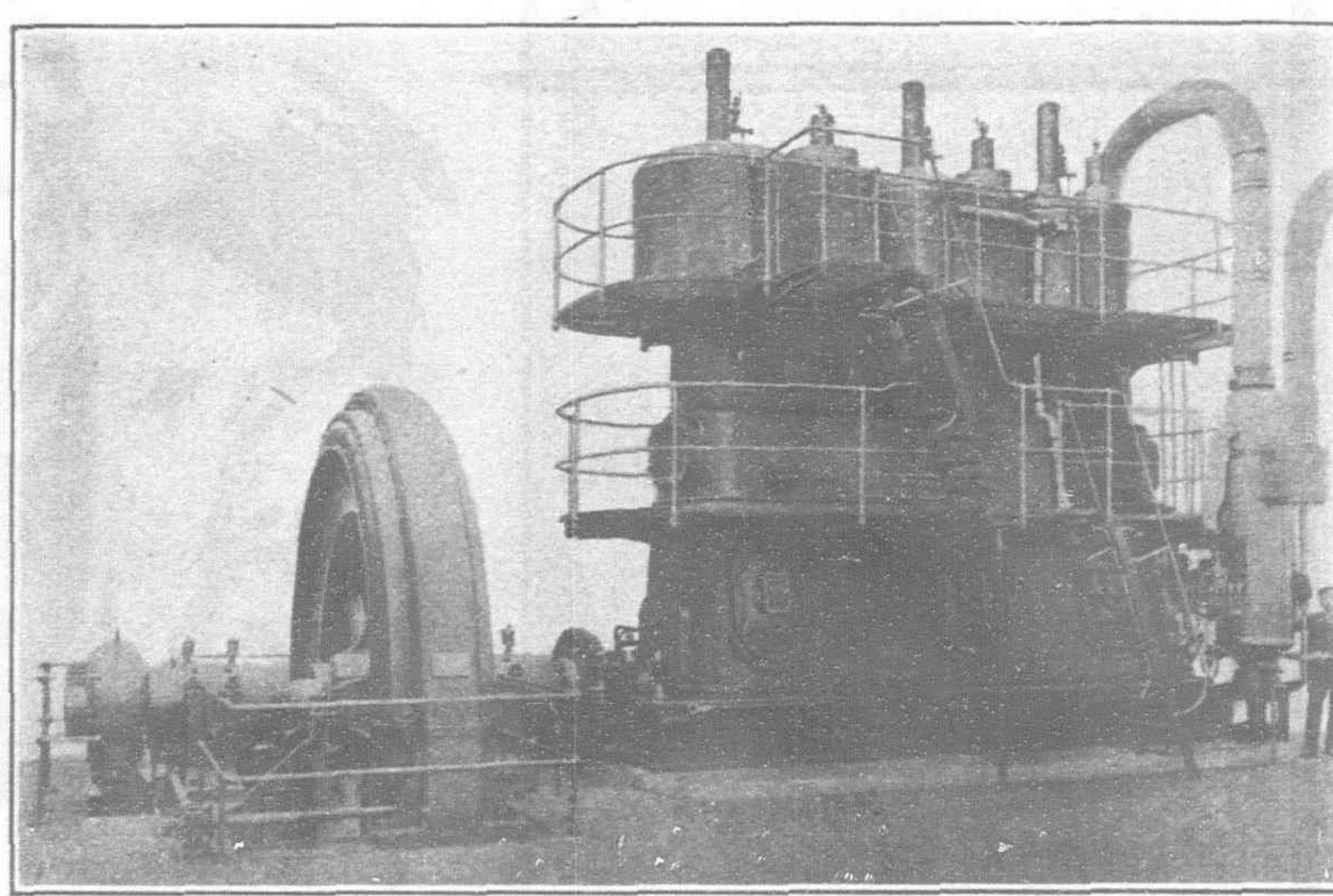
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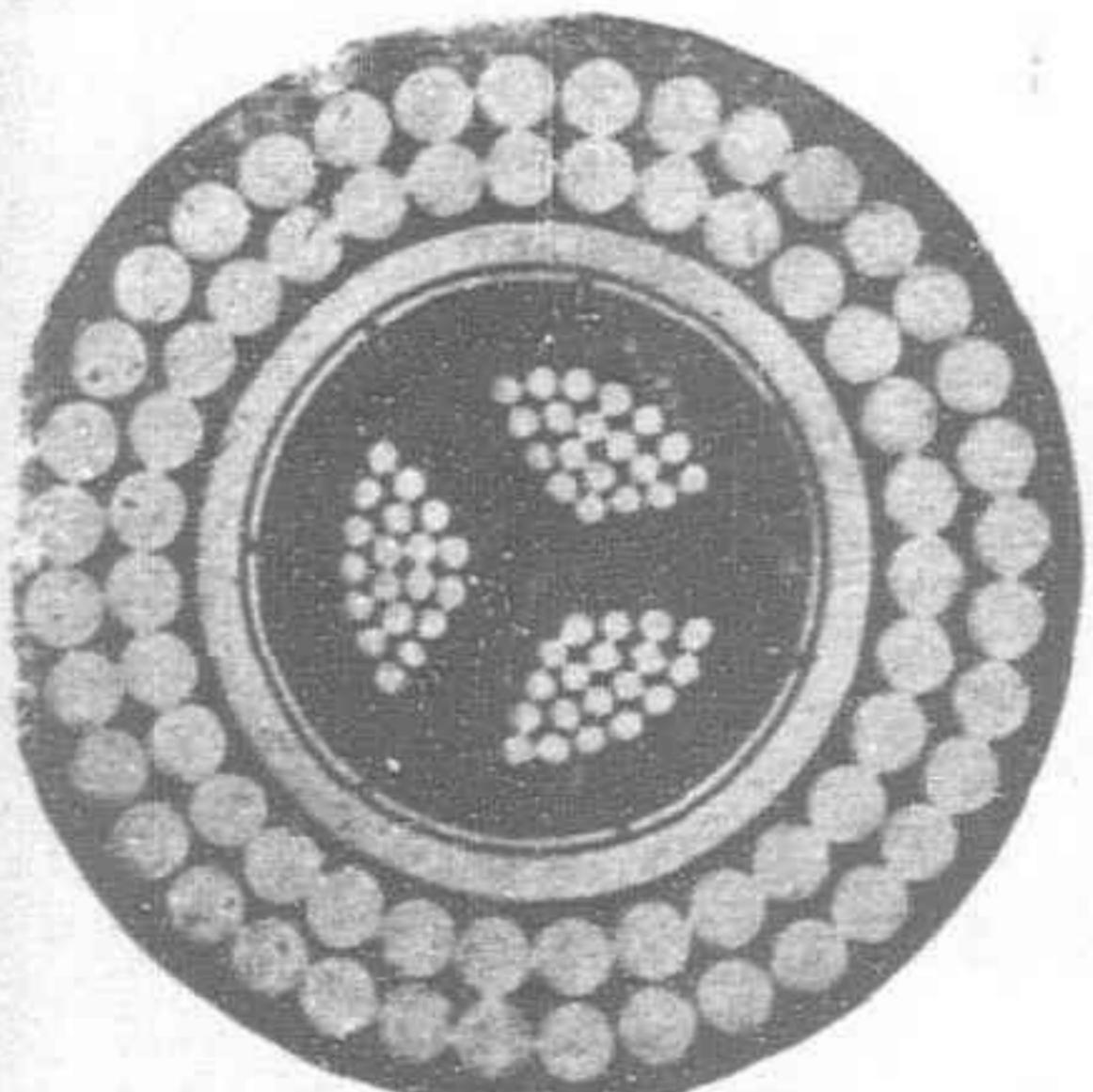
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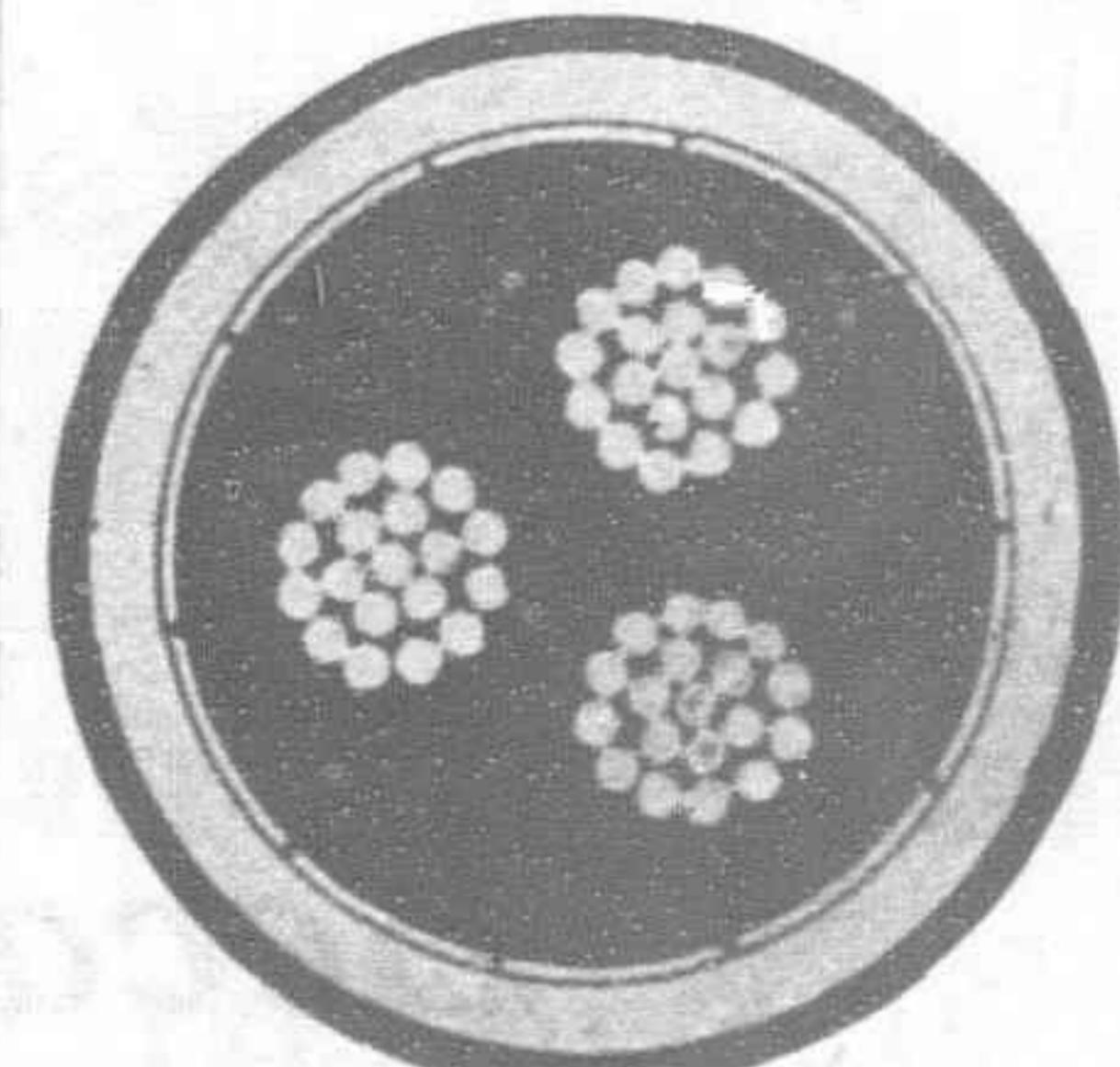


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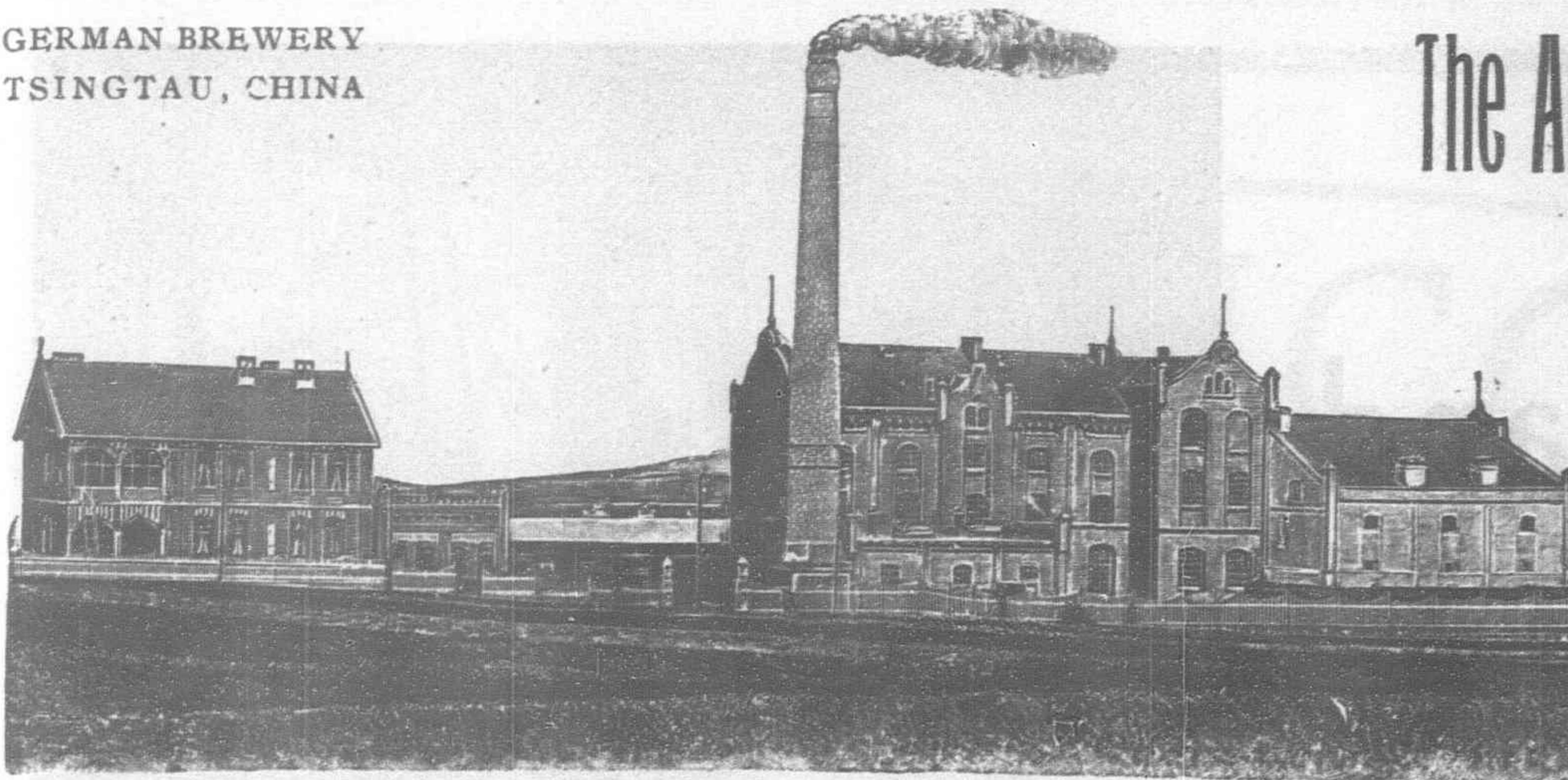
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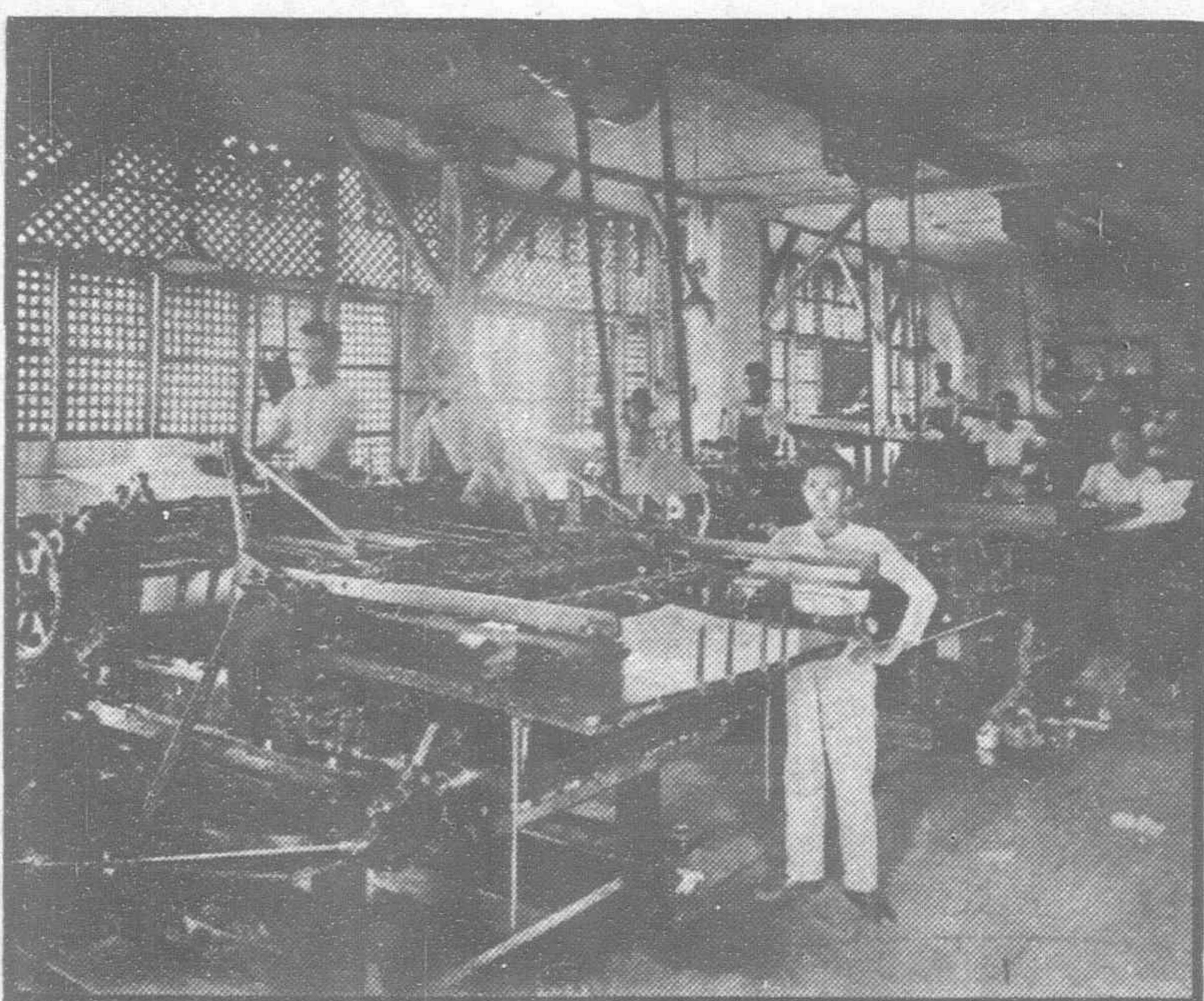
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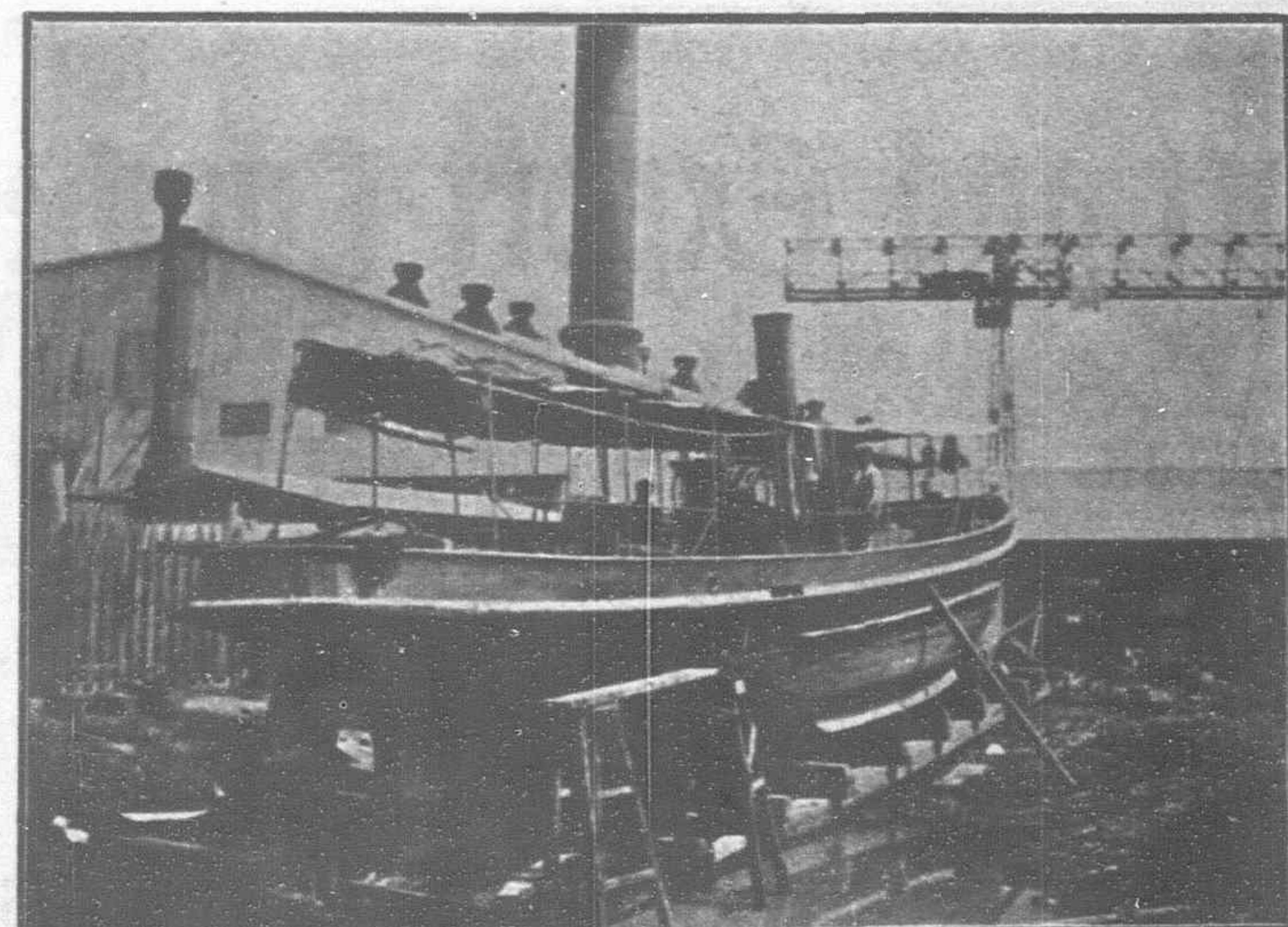
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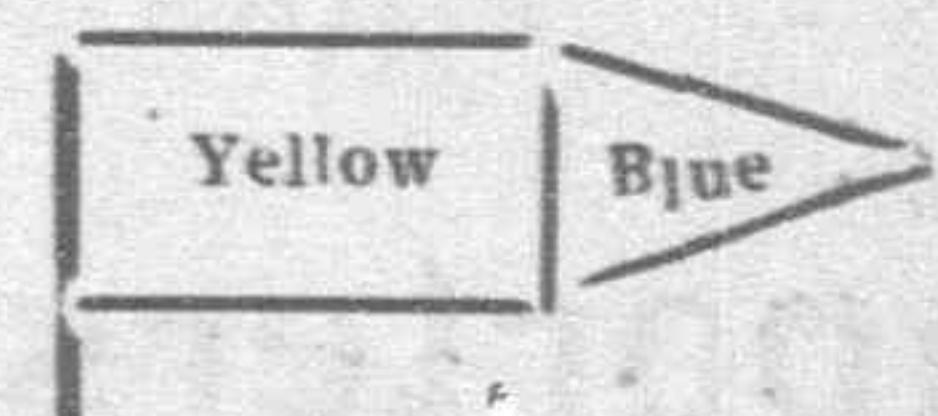
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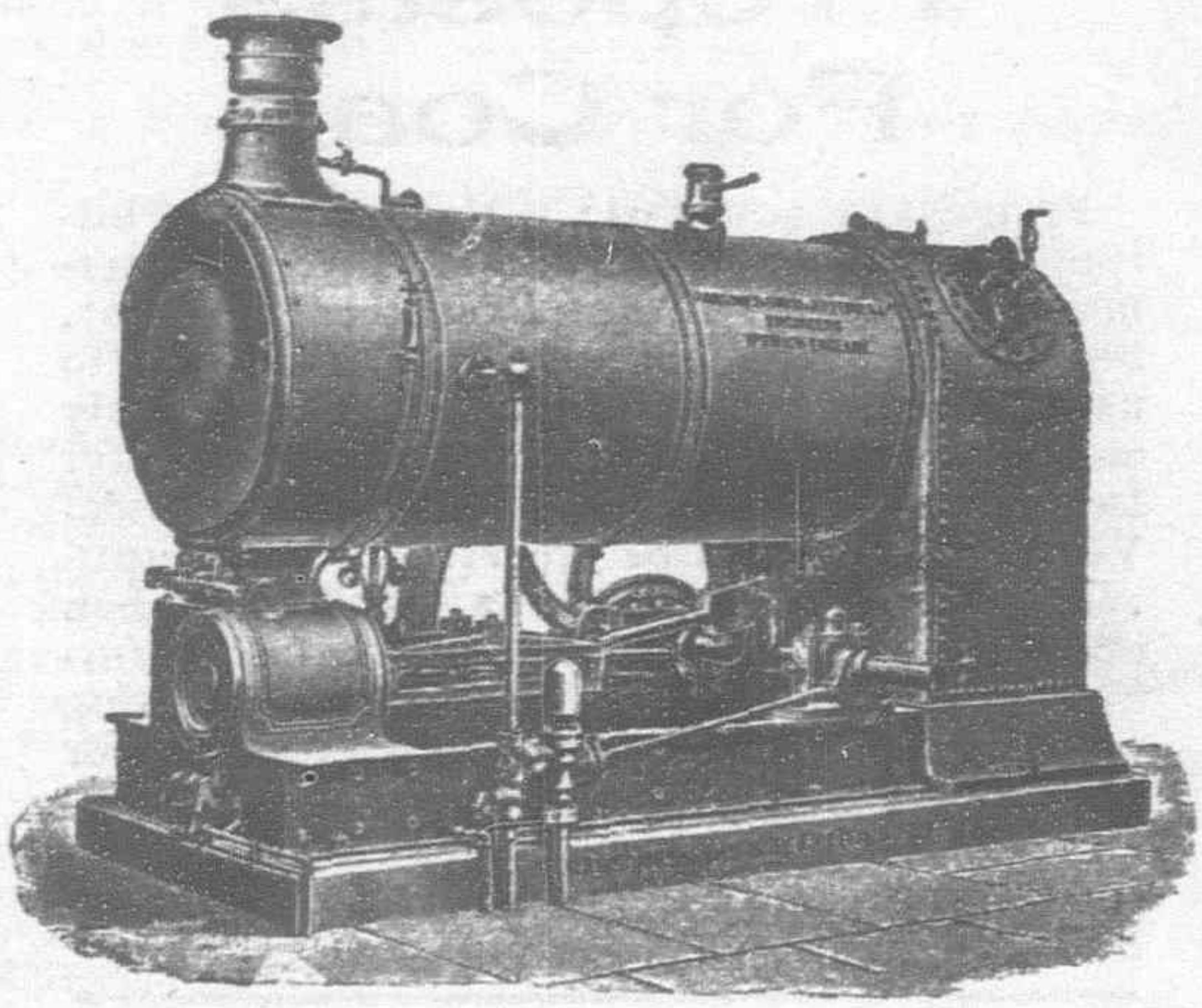
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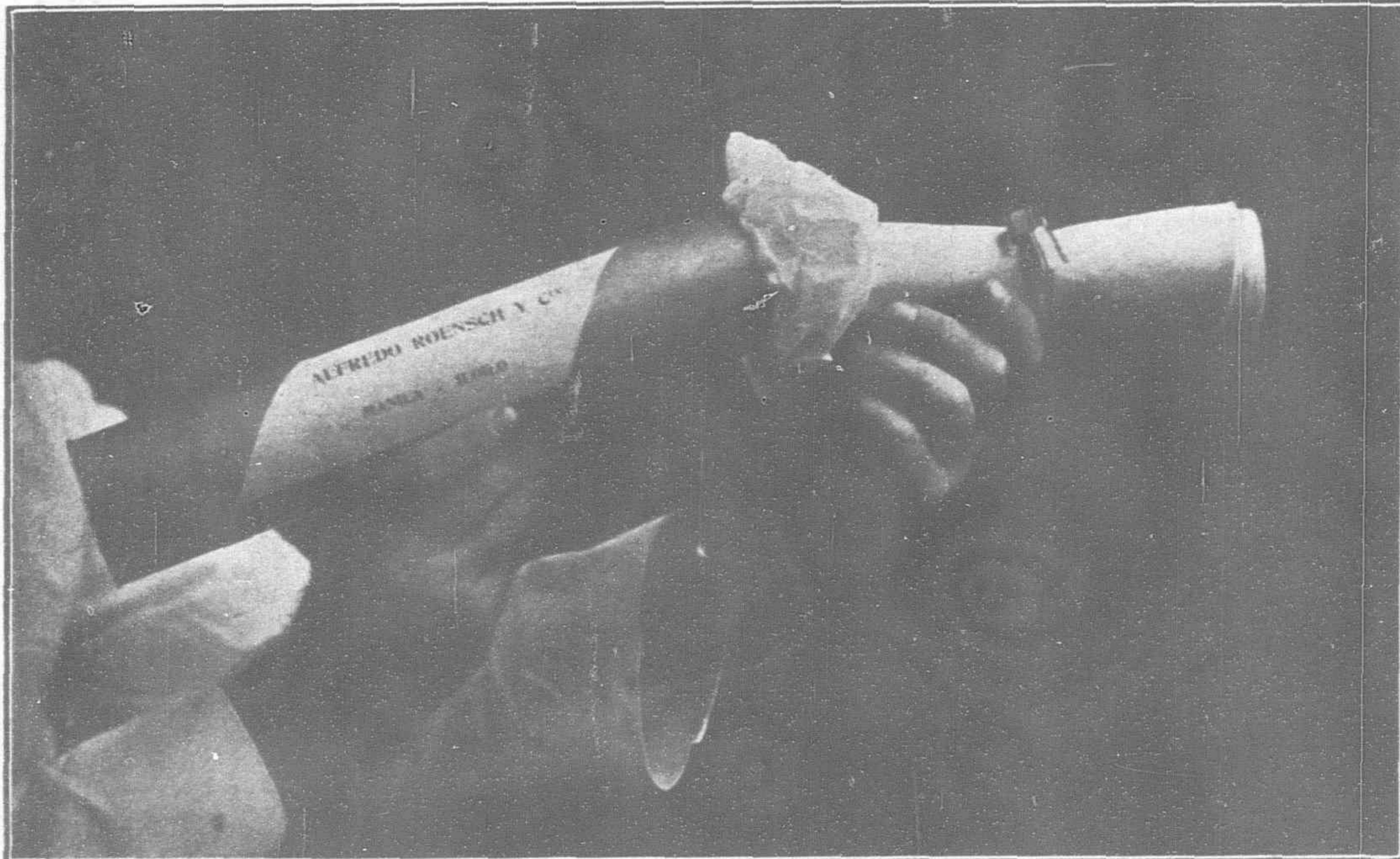
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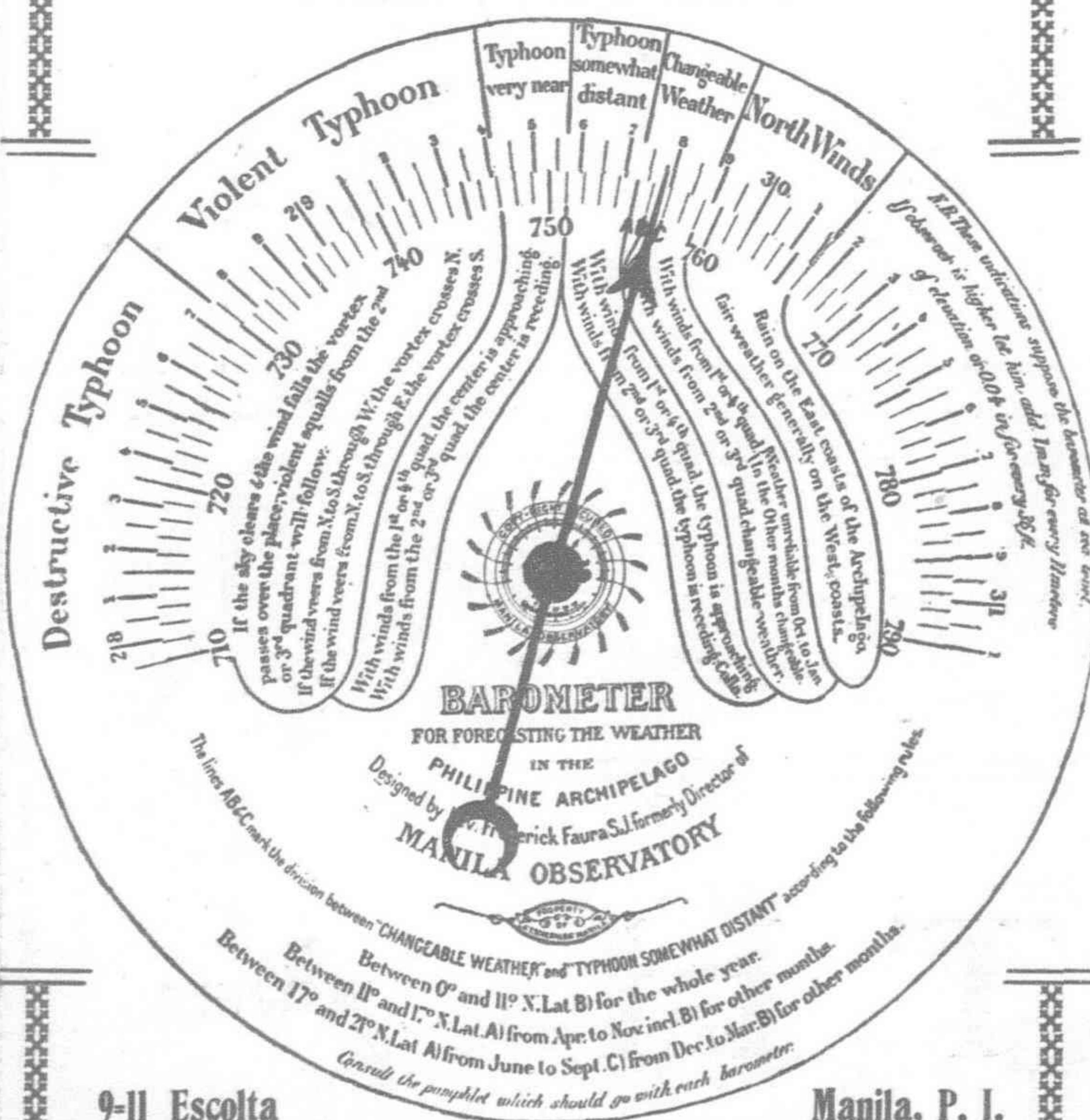
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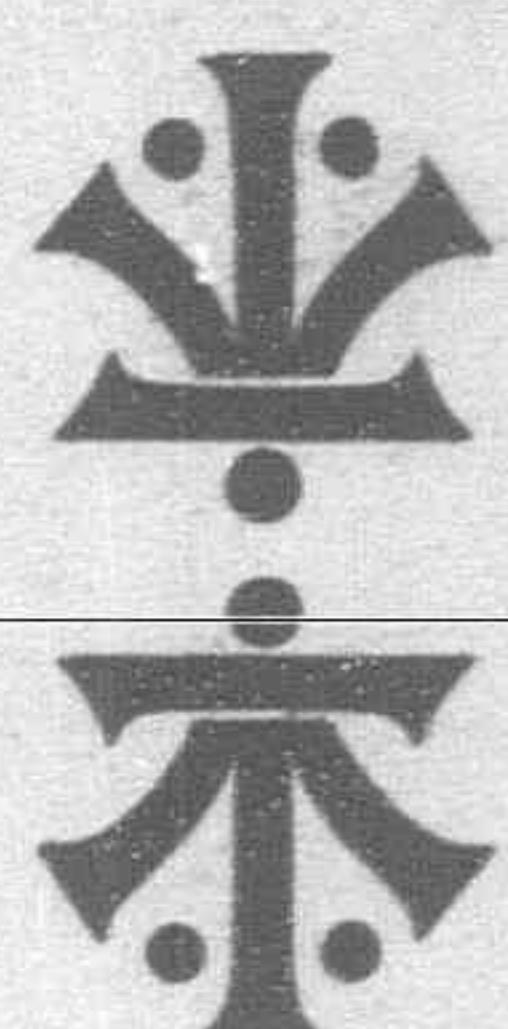
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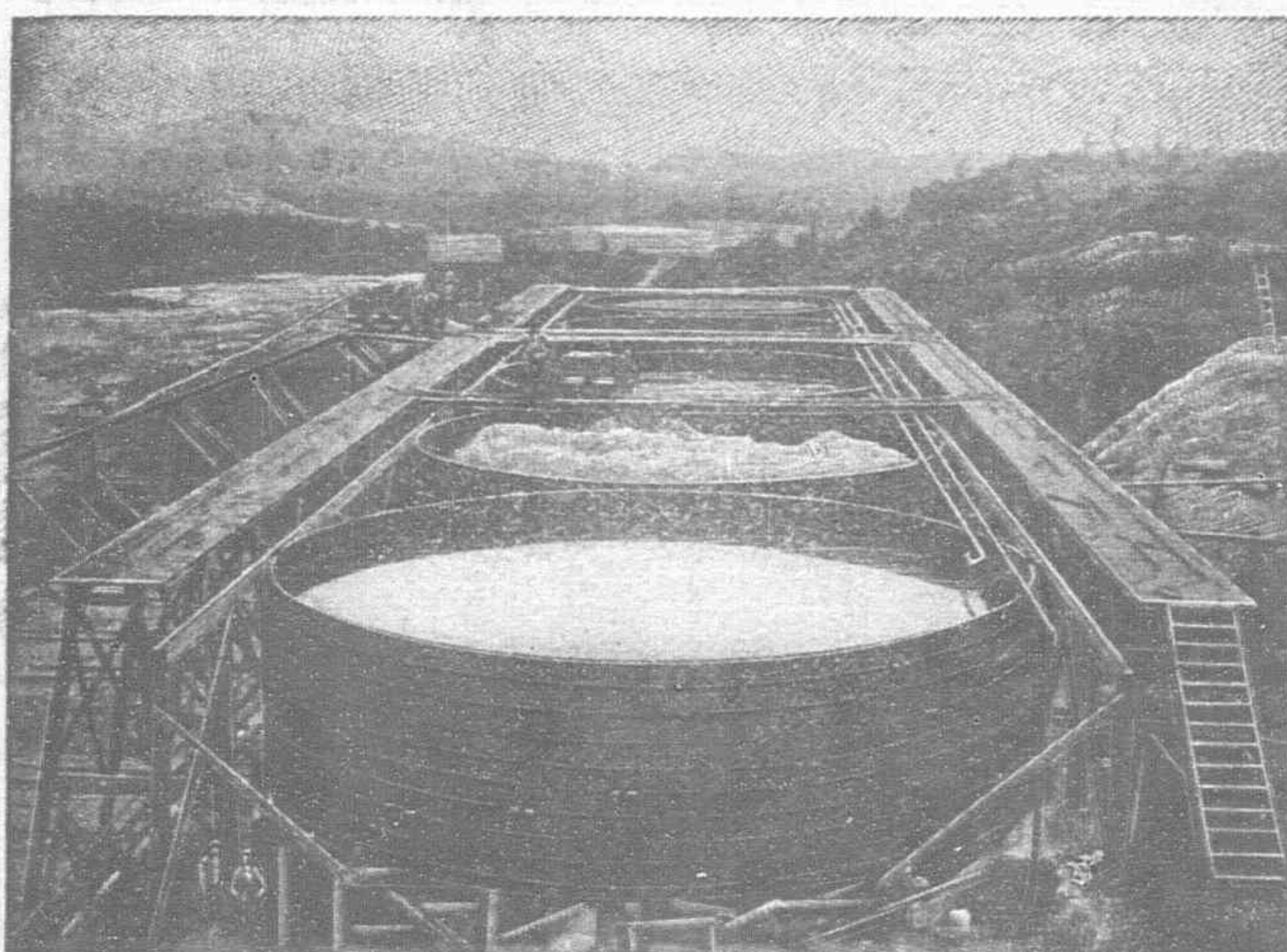
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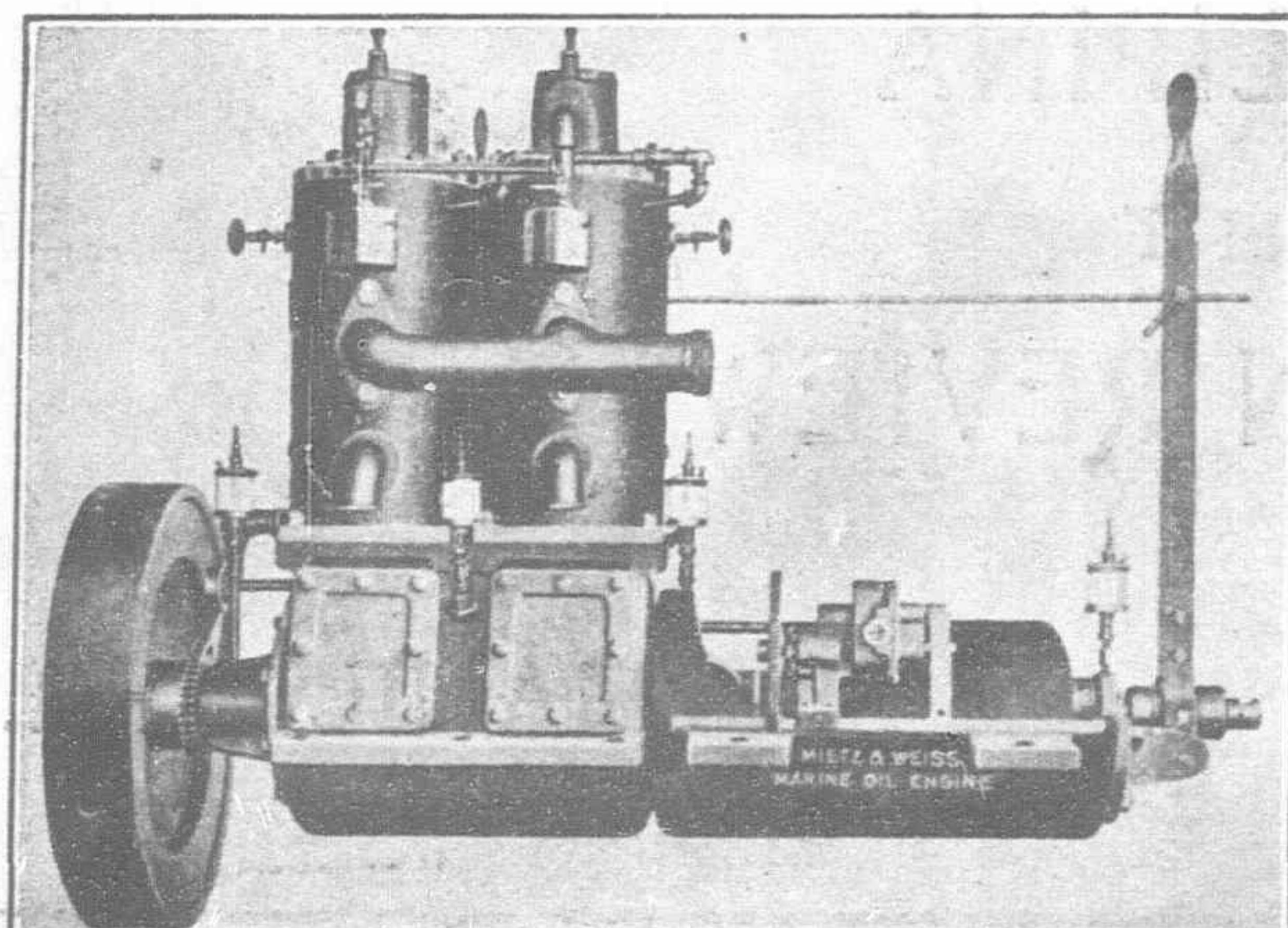


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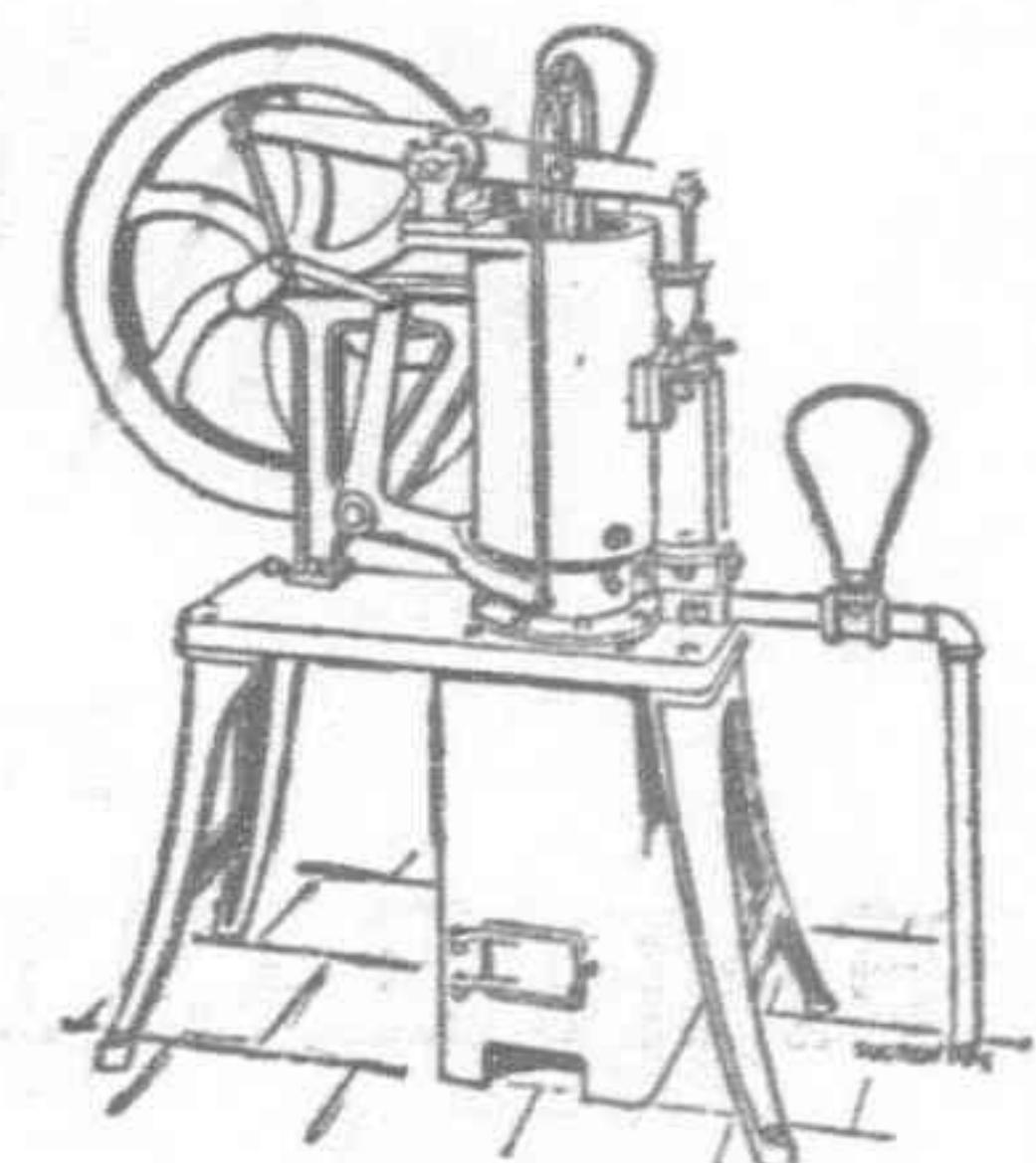
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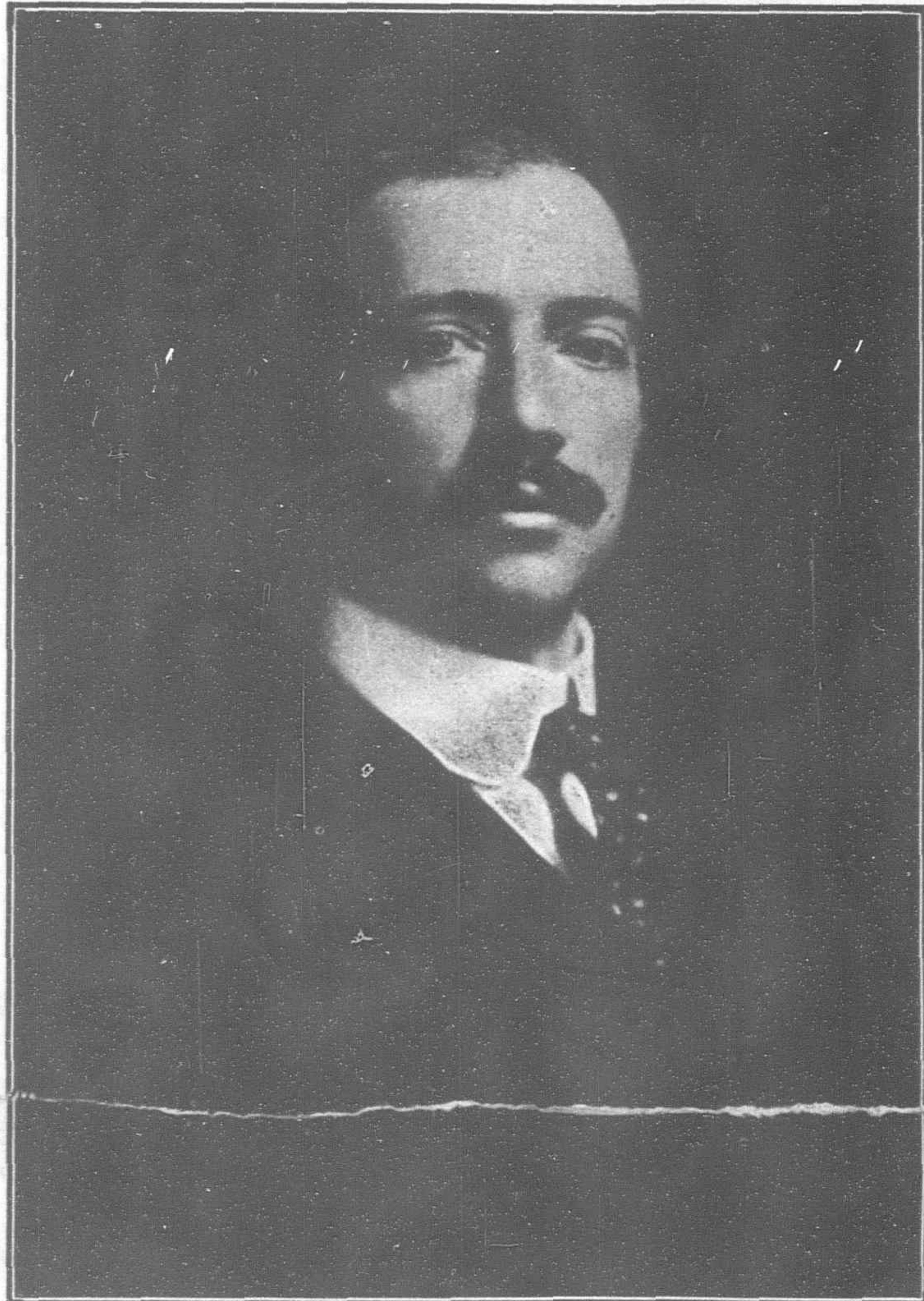
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SOUTHERN CHINESE INCAPACITY

The continued jarring noise from South China under the guise of alleged railway construction and associated with every intimation that something is being done to, for, or with the same old Canton-Hankow railroad has not abated. The subject has been worn so threadbare that few have the temerity to broach it. However, the *Hongkong Telegraph* has a writer who wields an editorial hammer and in graceful terms nails a few of the budding patriots and Chinese railroad and empire builders to the cross. The monuments, in the way of public utilities in South China, to Chinese enterprise in the direction of Chinese capital without foreign aid whatsoever, are not so prominent that they mar or blur the landscape. So far the Canton-Hankow road has not passed the stage where the "spell-binder" becomes satiated. We may expect a few more meetings, several announcements and at least one more year of preliminary skirmishing.

But the *Telegraph* is in a position to criticize intelligently and in the spirit that counts. That journal has faith in capacity of the Chinese to succeed without the training so necessary to western races, and when impatience is expressed in its columns it means something—everything. Under the caption "Effects of Canton-Hankow Railway Delays," the *Telegraph* says:

"It is hard to understand why the astute, thoughtful and far-sighted people of Canton have apparently so far failed to realize the fact that so long as the Canton-Hankow railway continues a nebulous quantity so long will the question of the control of the West and North Rivers be a matter of stress and worry. For many weary months, long before the time when the patrolling of the West River had reached the acute stage at which it stands to-day, we have indulged in hope following hope that the actual work in connection with the construction of the railway would be commenced at last, that the Chinese would be so captivated by the results achieved through their own energy, that it would be a case of Cairo to Khartoum over again and that the natives of the South, at all events, were not vain-glorious when they spoke of their ability to finance and manage their own undertakings. Yet what have we seen but a series of petty bickerings and begrudgings and jealousies, each individual evidently careless whether the bone fell to him so long as it did not come within the clutches of an opponent. We firmly believe that Mr. Chang, the ex-Minister of the Interior, could have carried matters to a speedy and successful conclusion if he had been allowed his way, that is to say, if everybody had bent to his will, taken his word for granted and trusted for the best. But the day of the autocrat is over, even in China, and Mr. Chang with all his foreign experience finding it impossible to get what he wanted, resigned the thankless office of president to the Company and resumed private life. For a few weeks past Sir Chengtung Liang Chang has been at the head of affairs, but what he has done since he assumed that important position it is impossible for us to say. We have heard now and again of Sir Chengtung being here and there throughout the Kwang Provinces and have made the futile guess that he was engaged in perfecting the arrangements for beginning the work in such earnest fashion that before another Chinese New Year has come and gone we should have been on the verge of realising the advantage of having a foreign-bred native installed as the head of one of the great branches of the Imperial Chinese railways. To start with, it is not a happy augury for the success of an undertaking when the leading light straightforwardly declares that he has no desire to have anything to do with the railway in any shape or form, and when that statement is backed up by numerous feints and apparent subterfuges to evade the appointment, the prospects of the railway become none the more halcyon. And again, because a man has proved an accomplished diplomat and has been accepted as a *persona grata* in the two great English-speaking coun-

tries is not to say that he possesses at the same time all the other virtues of mechanical genius, sound judgment in commercial affairs or engineering insight, granting for a moment that the delay in proceeding with the Canton-Hankow line has been due to no fault on the part of the managerial staff, how can it be explained that months ago the material for the Canton Waterworks Company, a new concern, was lying at the wharves at Kowloon, and has long since disappeared in the direction of Canton that the recently-projected iron bridge across the river would have been begun but for the untimely demise of the promoter which brought about the liquidation of the Company; and that the British section of the railway to connect Kowloon with Canton is being rushed through at top speed? If other Chinese and foreign undertakings can succeed in this way, why does the Canton-Hankow railway lag behind? Supposing that two or three years ago when the people of Kwantung were excited up to their eyebrows at the prospect of themselves owning and operating the line in question, and securing dividends which would be without parallel, because the administration would be cheap, efficient and actuated by the single idea of advancing the interests of the shareholders, supposing a start had then been made with the line, most of the objectionable practices which still exist in connection with the shipping of the Canton river delta would to a great extent have disappeared. For if your pirates and robbers and despoilers of fishing fleets find that their practice is waning owing to a diversion in the trade routes they are not likely to continue unremunerative labours longer than they can help. The genial old Viceroy Chang Jenchun, who has managed to get himself into hot water through his over-careful exhibition of an indisposition to do nothing, was the gentleman who had the calm assurance to suggest, quoting from memory, that because piracy had been endemic in the West River from times immemorial it was impossible to conceive that the remedy could be discovered at this late day. But in order to appease the worried Waiwupu he agreed to the acquisition of a fleet of four "cruisers" which would protect the long reaches of the West River from piratical gangs. The fleet was to cost, if we remember rightly, something like \$200,000. What country more surprised than China when Great Britain flung a dozen gunboats, river cruisers and torpedo-boat destroyers into the West River with instructions to search all suspicious craft and to take nothing for granted? Does anybody believe for a moment that the action of Great Britain was taken without previous consultation with the Powers and an expression of their entire unanimity in the scheme? It was a plain business proposition which could not be shirked any longer in face of the conjurings and arguments of the China Association branches and when the step was taken everybody realised how much better it might have been if it had been taken years ago. And yet there might never have been any need for this technical invasion of Chinese authority had those at the head of the Canton-Hankow Railway Company performing duty in the first instance.

In a recent number of the *FAR EASTERN REVIEW* we expressed the opinion that for years to come China would benefit from foreign direction of western methods of development in China and that lack of experience in organization and supervision would mean delay, discouragement and failure, and especially so in the most important feature of development, viz; the construction and operation of railroads. This does not mean appropriation by foreigners of Chinese territory or intimidation of China for gain. It means that if occidental methods are adaptable to the development of an oriental country, they may be introduced successfully not by a directorate of oriental "spell binders," but by the hard-headed, experienced westerner only.

The *Telegraph* does not agree with us in this, yet its expression quoted above would indicate symptoms of disgust with a theory that bore some evidence of puncture.

EXPERIMENTS IN GOVERNMENT

France in Indo-China and America in the Philippines have inaugurated the first foreign experiments in local self-government in the Far East and, in both instances, the success of the experiment will be measured by the capacity of the natives to appreciate the responsibilities of participation in government rather than interpreting the freedom of action in the concession to mean license.

The native Deliberative Assembly was convened at Hanoi, November 14th, 1907, and the Assembly of Delegates at Manila, October 15th. The first session of the Hanoi assembly was concluded November 22nd and the first session of the Philippine assembly was concluded February 1st. On February 3rd the second session of the Philippine body opened its second session. The first session was called the inaugural session and the session now in progress will be known as the First Session.

A résumé of the work accomplished by the Deliberative Assembly of Tonkin shows recommendations for the simplifying of the system of direct taxation and the abolition of the market tax. It urged the improvement of local government in the country districts and suggested reforms in the assessment system in vogue. The principal feature of its deliberations was a recommendation asking that the education of all boys between the ages of 8 and 13 be made compulsory and that the parents be made liable to fine for neglect to comply with the law. It also recommended legislation against lepers and provision for dispensaries in the country districts.

The Philippine Assembly during its session entertained 125 bills. Of these but few have been reported from committee. Two have been killed in committee, one of which was a bill to prohibit the importation or sale of playing cards under penalty of P100 fine for each pack found in the possession of any offender.

The bills originating in the Assembly that have been approved by the Commission or Upper House include an appropriation of P1,000,000 for the construction of barrio schools; a bill providing for the cancellation of loans from the insular to the provincial governments on the condition that the provinces set aside an equal amount for the furthering of education; a bill prohibiting cockfighting and horse racing on Rizal day; a bill increasing the per diem of the members of the assembly from the P20 allowed by act of congress to P30 per diem and providing a salary of P16,000 for the speaker. An appropriation of P10,000 for the carnival was also authorized.

The only bill rejected by the Commission was one passed by the assembly providing that the payment of land tax be suspended until May 1st, 1908.

It will be seen that both these institutions devoted attention to the education of the masses and at the same time recommended some legislation that would reduce revenues. In a measure, there has been a disposition to appropriate out of the present funds rather than to provide against future disbursements.

The Philippine Assembly expressed dissatisfaction with the per diem provided by Congress in the Philippine Bill and proceeded to bring it up to what the members considered they had earned during their sojourn in the capital. The greater part of the session was spent in organizing and it is expected that more progress will be made during the present session.

The object of the French and American governments in their respective colonies is to educate the natives in the science of self-government and at the same time secure through the representative houses a more comprehensive idea of the needs of the people and the most desirable way to legislate to meet these needs.

Both assemblies, however, are on probation. The increase of their powers will be measured by the capacity they demonstrate to serve the best interests of the people. It is an innovation in government of conquered peoples and western nationalities are not sanguine of its success. For this reason, the Orientals should make the best of their opportunity to win the confidence of the governments that have shown such generous interest and confidence in them.

SIR ALEXANDER HOSIE'S SPLENDID RECOMMENDATIONS

In closing his report on foreign trade in China for the year 1906, Sir Alexander Hosie gives some hints and suggestions for the benefit of British manufacturers that should not be ignored. He claims, and rightly, that the Chinese have but a very vague idea of the kind or cost of machinery needed in the establishing of any kind of a plant and that the development of the manufacturing interests of China and the British manufacturers' trade would be mutually benefited by sending to China a staff of expert agents to give the Chinese all the necessary information and to encourage them to investments in which they could indulge intelligently. That China is in need of much more manufacturing plant than is now being purchased must be admitted; and the spirit and the capital is there. All that is needed is knowledge and that will beget confidence. As Sir Alexander says, the expert agent will remove any lack of the latter. The British manufacturer must be gratified by the knowledge that his interests are not neglected by the Acting Commercial Attaché, whose report is one of the most valuable and comprehensive that has come out of the Far East in many years. And so thoroughly has he gone into every phase of the commercial situation that nothing has been overlooked that would serve to give those interested an intelligent conception of the conditions of trade in China. His hints and suggestions are particularly of value since they offer a remedy for the defects in the methods of manufacturers looking for Chinese trade. For this reason THE FAR EASTERN REVIEW takes pleasure in presenting his conclusions which follow:

"At present China is in need of manufacturing plant of all kinds and she wants to buy, but the Chinese have only the vaguest idea of what is actually required for factories and the cost and they have to be taught. What would facilitate business more than anything else would be for manufacturers in the United Kingdom to combine and send out expert agents prepared to teach what is needed and the price. There is an example of this nearer home. I believe that the British Engineering Company of Egypt is a combination of British manufacturers doing exactly what is required in China. Establish such a company in Shanghai with a staff competent to give all technical information, draw up estimates, plans, &c., and there should be no doubt as to the result. A few houses in Germany are thus represented in Shanghai. There are, it is true, quite a number of firms in Shanghai holding the agencies of British manufacturers, but far more than this is required. Firms in China have many diverse interests to attend to and they are unable to push the manufacturers' business as it might be done by means of special expert representatives. Such experts, too, can quote more favorable terms than general agents in the United Kingdom and considerable saving is effected. There are a few, too few, representatives of this class in China, and one of them informed me that not a week passed without his being consulted by German merchants, whereas during his residence of a year in the country there may have been a couple of British inquirers. Is it surprising, therefore, that many British houses are represented in China by German agents? Another complaint against British firms in comparison with their rivals is that they are rarely able to quote c.i.f. prices, and British manufacturers too often simply give the cost ex factory, leaving the would-be purchasers to imagine what even the f.o.b. prices are likely to aggregate. I have painted one side of the picture and no doubt there are many instances in which the British manufacturer, firm, or agent scores over his rivals, but my object in writing as I have done is to point out defects that have come to my notice in the hope that a statement of them may lead to remedies and an increase in British trade and the handling of British trade—import and export. I have no wish to decry the British manufacturer or merchant. On the contrary, I believe that he is as competent as any of his rivals and that his goods are frequently superior,

but his methods of doing business seem to require adjustment so as to bring them more into line with the commercial conditions now prevailing in China. A gentleman, a friend of mine, not a British subject, in whose judgment I have great confidence, tells me that the British merchant in China has, of all nationalities, the best head for business and that his one failing is lack of push. This opinion is the result of 33 years' residence in China and constant intercourse with commercial men.

"There is, too, a scarcity of young British firms in China. Not so German. A young German comes to Hongkong or China provided with a small capital and backed by his friends at home. He at once starts business, pushes it for all it is worth, and aided by the banks is soon on the highway to success.

"If want of push is a danger to British interests in China, there is another danger which is more of the future than of the present. Its effect has not yet been appreciably felt, but it is none the less real. In India direct trade between the native and the manufacturer is steadily increasing and the services of the middleman are being dispensed with. The system has begun in China, and Chinese merchants, especially in the metal trade, are already ordering direct for themselves as well as for others. That the system will develop with education and increasing knowledge there cannot be the least doubt, and, although it will not spring up with the rapidity of Jonah's gourd, it is even now a tiny sapling and it will grow. Not alone British but all foreign interests will be affected, and the survival of the fittest will mean the survival of those who are content with modest profits. Even now the great bulk of the foreign import trade is a commission business, and when the Chinese merchant is sufficiently educated and trusted he will do his best to save the commission. At present the foreign middleman is simply his guarantee that his order will be properly executed and his assistant for financing his transactions.

"I would remind those who are interested in the trade of China that this report deals in a general way only with the foreign trade of the Empire, which is only a part of China's trade and that details of this trade will be found in the Consular and customs reports of individual ports, which well deserve perusal. China is such an immense country that to do justice to its trade would tax the efforts not of one but of several men, so that a single-handed attempt must be poor at the best. Above all, I would strongly advise manufacturers and merchants in the United Kingdom as well as in China to secure copies of the 'Analysis of the Foreign Trade of China,' which was published by the Statistical Department of the Imperial Maritime Customs for the first time in 1905. The second and enlarged issue for 1906 is now in the press.* From this anyone interested in the trade of China will learn the quantities and values of the principal foreign imports into China, the individual countries whence they come, and the ports through which they are distributed for consumption, while, in the case of exports, he will ascertain at a glance not merely the quantities and values of individual exports to foreign countries and the countries to which they are consigned, but he will also know the total movement of any particular export at every port in China, whether that export is intended for foreign or home consumption; in other words, he will be able to discover whether the native produce in which he is interested is procurable in any large quantity and in what quantity.

"In conclusion I have to announce what is in all probability already well known, that it is proposed to hold in 1909 an International Exhibition in Shanghai, the industrial centre and commercial metropolis of China, and to state my firm conviction that such an exhibition, if properly carried out, will go a long way to increase and develop the foreign trade of a country which is clamouring not only for foreign goods but also for machinery to start as well as to expand many and varied industrial undertakings."

*The agents for the sale of the Chinese Customs publications in London are Messrs. P. S. King and Son, 2 and 4, Great Smith Street, Westminster, S.W.

PHILIPPINE BANKRUPTCY LAW

The proposed Bankruptcy Law for the Philippine Islands which was referred to a committee of the Bar Association has been reported back to the Commission with recommendations and it is not improbable that it will be put on its passage in amended form in the near future. This will prove a boon to the commercial community sadly needed.

Under the present code of civil procedure in force in the Philippines, the creditor securing the first attachment has precedence over other creditors and so on in the order in which suits to recover are filed and attachments issued. The creditor who fails to press his claim early is usually left out in the cold and sees an asset on his books fade away. The Bankruptcy Law is designed to provide for the protection of all creditors of an insolvent without discrimination. Each creditor will thus secure his pro rata in the distribution of the amount realized in closing out the property of the debtor.

Under the present code, the conservative business man is necessarily so careful of his credits that it has a confining influence on trade and not a few houses are thus handicapped. Credit houses are prone to hesitate to carry a heavy account in instances where it might be necessary to the proper conduct of the debtor firm's business and for the reason that under existing laws the creditor might wake up to find that some other creditor had secured an attachment and by forced sheriff's sale absorbed all the debtor's assets, leaving the unalarmed creditor out in the cold whistling for his money.

Action on this act cannot be too greatly expedited.

OBITUARY

The Honorable Arthur Walsh Fergusson, Executive Secretary of the Philippine Islands, passed out suddenly at his home on Calle Real, Malate, Manila, Thursday evening, January 30th, and Manila was plunged in gloom as the news spread throughout the Philippine capital. He leaves a widow and a son. Quoting the *Cablenews-American* as evidence of the warm place held by the deceased in the hearts of all classes and nationalities in Manila. "A rare tribute to the love and esteem felt for a fellow citizen was the universal grief expressed yesterday when the news of the death of Arthur Walsh Fergusson became known throughout the city. Citizens of every nationality felt a personal loss. The city awoke from the shock which has seldom been its lot. The almost unbelievable fact that the big, genial man, who was known and loved by everyone, had been stricken by the cold hand of death, when realized, cast a gloom over the entire people. The Commission, the Assembly, the army and navy, civic bodies of every character met during the day and evening and added their tribute of respect to the general sentiment of the people, which, though not placed in written words will be engraved on the imperishable parchment of time as an everlasting memory."

Mr. Fergusson graduated from Georgetown University as Master of Laws in 1886 and practiced law in Washington until 1891, during which time he acted as official interpreter of the International American Conference of 1889 and the International Railway Commission of 1891. He was secretary of the International Monetary Commission and continued in that office until he was called on to serve the United States Chilean Claims Commission and the U.S. Venezuelan Claims Commission as secretary. He was serving as translator of the Bureau of American Republics when selected to accompany the American commissioners to Paris as official interpreter in concluding a treaty with Spain. As a special tribute to him the Spanish commissioners recommended that he be made the official interpreter for the conference. Later he became Spanish secretary to the United States Philippine Commission in 1900 and subsequently Executive Secretary of the Philippine Islands.

MR. WILLIAM E. PARSONS

Consulting Architect to the Philippine Commission.

Mr. William E. Parsons was born in Ohio in 1872 and graduated from Yale in 1895. Later he took a course in architecture at Columbia University and was awarded the McKim Traveling Scholarship after graduation. Then followed an extra course in Paris, France, in the Ecole des Beaux-Arts, and with this equipment, the young architect located in New York City, in 1901. He entered the office of John Galen Howard and later opened an office of his own and was building up a splendid practice when he received an offer to take up the duties of Consulting Architect to the Philippine Commission. He was highly recommended by Mr. Burnham, the famous landscape architect, and it was upon this recommendation that the commission decided to make him the proposal to take up a career in the Philippines. He arrived in November, 1905, and during the last two years has annually supervised the plans of over three million dollars' worth of permanent construction for the insular, provincial, and municipal governments in the islands. His duties include the supervision of all plans for this construction, nothing being carried out without his approval. In addition to this he has general supervision of the development of public parks, the laying out of the new streets and the selecting of sites for public buildings, being charged with the interpretation of the preliminary plans prepared by Mr. Burnham for the improvement of Manila and Baguio. In addition to his government work Mr. Parsons has designed the addition to the Tondo Depot of the Manila Railway Co., the new Manila Club, The New Army and Navy Club, the Elks Club, etc.

Mr. Parsons has always strongly advocated permanent construction by the Philippine government as more economical than the temporary work which featured the early program in the islands and as a result all government work is constructed of reinforced concrete and the wood used is the best of Philippine hardwood. His main hobby is the preservation of the old, historical walls of Manila and the beautifying of the vicinity, especially the moats by grading and developing public gardens. This work is now under way.

NEW PUBLICATIONS

Sixth Annual Report of the Secretary of Public Instruction to the Philippine Commission for the Fiscal Year ended June 30, 1907, has been received. In this report, the Hon. W. Morgan Shuster, Secretary of Public Instruction, reviews the expenditure for the maintenance of the Bureau of Education since its inception, and the grand totals show an enormous outlay in this desirable work and will surprise those who have not taken the pains to keep track of Philippine educational effort. The municipal expenditures for supplies, salaries and wages and construction and repairs from 1903 to 1907 make a total of ₱4,512,776.94; the account of salaries and wages by provinces for the fiscal years 1900 to 1907 inclusive amounted to ₱12,070,920.12 and the amount expended in the purchase of school books and supplies furnished the provinces from 1901 to 1907 inclusive was ₱2,763,782.82 making in all an investment of ₱19,347,579.88 in this work. There are enrolled as pupils in the different schools 479,978.

The net profit of the division of Cold Storage for the year was ₱368,163.24 and the Secretary recommends the reduction of the price of ice to ₢0.015 a pound to the public.

In his reference to the Bureau of Prisons, the Secretary directs attention to the success of the Iwahig penal colony where about 500 prisoners are given every inducement to work out their own salvation and fit themselves to be honest citizens and to make the colony self-supporting.

The feature of the report is the reference to the attention paid by the educational department to manual training in the form of industrial and agricultural work and the purpose of the department to extend this feature.

The Chemistry of Gas Manufactured, by Harold M. Royle, F.C.S., published by the

Norman W. Henley Publishing Co., New York, and Crosby-Lockwood and Son, London, has been received. This volume is announced to be a practical manual for the use of gas engineers, gas managers and students and the author states that he has confined himself to the chemistry alone, making no reference to the operations of manufacture.

The object of the volume is to make a concise manual available covering questions that may confront engineers and managers in the regular discharge of their duties and especially in works where the capacity does not warrant a complete chemical division with its staff. It contains twelve chapters with illustrations and certainly covers the subject in an intelligent, concise manner. Price, \$4.50, U. S. Currency.

Technical Literature, the well-known magazine devoted to technical information on engineering, architecture and construction, will henceforth be known under the title, *The Engineering Digest*. This change was made to remove any misapprehension among technical readers as to the nature of its contents. The magazine is not exclusively devoted to the literature on technical subjects but to subjects of current interest as well. Another change has been made in the caption to what is known as "Index to Technical Articles in Current Periodical Publications" will be called "Technical Press Index" and the scope will be increased to include more foreign publications. There will be no change in policy. This magazine is an invaluable companion to technical men the world over and well merits the place it has won in this wide field.

The Asylum Press and Directory of Madras and South India for 1908, the CVIIth annual edition of that publication, has been received. It contains many additions of interest which add to its value as a compendium of information on Madras and Southern India. Among innovations are a complete list of Zemindars of South India and a résumé of the sea trade of Madras for the year just concluded. It also contains a colored map of Madras showing the new postal districts and the directory is carefully indexed. Lawrence Asylum Press, Madras, Publishers.

Specifications and Contracts, by J. A. L. Waddell, C. E., D. Sc., I. L. D., containing a series of lectures by the author together with examples for practice in specification and contract writing and notes on the law of contracts by John C. Wait, M. C. E., L. L. B., is a valuable volume issued from the presses of the Engineering News Publishing Co., New York. It is recommended for use as a textbook in engineering schools with a view to perfect young engineers in the writing of technical documents, by the use of the examples therein applicable to every condition that the graduate may meet in the practice of his profession. Price, \$1.00 U. S. Currency.

Proceedings of The Engineer's Club, of Philadelphia, Volume 24, is received. It contains papers and discussions on Ball and Roller Bearings in Practical Operation, Regulations of the Bureau of Building Inspection in Regard to the Use of Reinforced Concrete, etc. These proceedings are published quarterly and are of general interest to the engineering profession. Subscription, \$2.00 U. S. Currency per volume.

Annual Report of the Municipal Board of Manila for the fiscal year 1907 is received. It contains several illustrations of the new water-supply system in course of construction and a résumé of the year's work in all departments. The total net expenditure was ₱3,871,964.92 and the receipts from all sources, ₱4,103,220.80 of which ₱1,161,589.48 was contributed by the Insular government. During the year ₱2,113,895.82 was expended on sewer and waterworks construction, making in all since the initiation of the work, ₱2,711,736.59. This amount is not included in the regular expenditure account. The bonded indebtedness at the end of the fiscal year amounted to ₱6,000,000 and with the sale authorized by Act of the Commission, the total indebtedness will be ₱8,000,000, incurred for sewer and water construction only.

NEW ZEALAND RAILWAYS

The Public Works Statement issued by the Hon. James McGowan, Acting Minister of Public Works of New Zealand, is an interesting résumé of the remarkable progress made by the colony in public improvements and especially in reference to the attention paid and the expenditure made in providing the country with an effective modern system of railways. On new construction alone, for the year ending

In connection with this interesting statement it is worthy of note as an evidence of the enterprise and energy of the New Zealand people that the Department of Public Works in all expended £2,205,605 in public works of the most modern character, during the year referred to. When it is understood that the colony has less than one million population, this investment must be recognized as a wonderful achieve-

Railway Department's outlay on improvement-works amounted to £426,065, thus:—

	£
Additions to open lines.....	306,150
Hutt Railway and Road Improvement Account.....	35,958
Railways Improvements Authorisation Act Account.....	81,957

"Thus bringing up the gross total expenditure on railway-works for the year to the very large sum of £1,345,795. Numerous requests have been made during the present session for new works to be started, or for works already in hand to be proceeded with at an accelerated speed, but in view of our present large disbursements the Government has been compelled to adopt a cautious policy. The expenditure on the North Island Main Trunk Railway alone during last year (including the value of the permanent-way materials issued to the line) amounted to over £400,000, and for the current year a vote of £330,000 is proposed. Next year will see the completion of this great work, and this very large expenditure will then cease, and the money be available for other purposes.

"Since the last Public Works Statement was brought down fifty miles of railway have been completed and opened for traffic, and the rails are laid and ballast-trains running on an additional eighty miles.

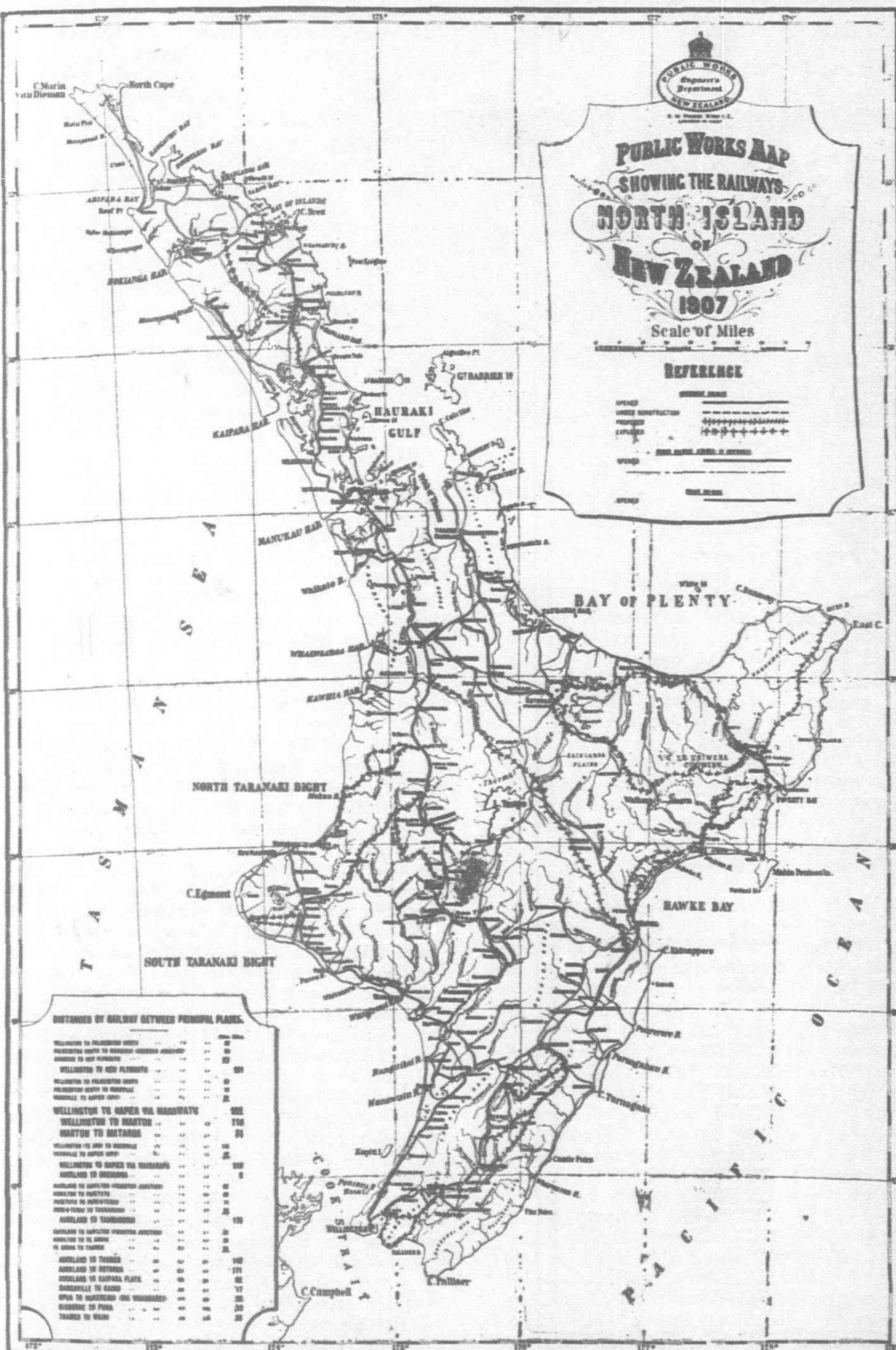
I will now refer more in detail to the several lines that have been in hand, and the proposals of the Government with regard to each for the current year.

"KAWAKAWA-GRAHAMSTOWN.—Work on this railway has been in progress at three places—viz., extensions from Kawakawa southwards and from Hukerenui northwards, and also from Whangarei to Grahamtown. The early closing-up of the gap between Kawakawa and Hukerenui is very desirable not only in the interests of the settlers and to secure the thorough opening-up of the district, but also from a railway-working point of view, as it will be more satisfactory and also more economical to work the line as one undivided section than it is at present with different sections several miles apart. The number of men employed on the section northwards of Hukerenui has accordingly lately been increased.

"The expenditure on the line last year amounted to £10,624, and the vote proposed for the current year is £15,000.

"HELENSVILLE NORTHWARDS.—The work done on this line last year constituted quite a record, the expenditure (including permanent-way materials) having amounted to £46,004. The section between Kaipara Flats and Tauhoa was completed and handed over to the Railway Department for regular working on the 11th June last; the next section to Waby is already in use for both passenger and goods traffic, in connection with the ballasting; the formation-work on the further section to Wellsford is well in hand and progressing satisfactorily, and a new section, extending to Te Hana, is just being started.

"Beyond Te Hana a survey party is at work locating the railway towards Maungaturoto, and already has the line pegged for over ten miles. The location of this section has given rise to a good deal of local controversy, a considerable section of the settlers desiring a westerly diversion of the route, so as to carry it across the Otamatea River, near Young's Point, and through the Bickerstaffe Estate. The officers of the Department in the Auckland District advised a more central route, but in deference to the strongly expressed wishes of the settlers the then Engineer-in-Chief—Mr. W. H. Hales—made a special visit to the locality in December, 1905, and went personally over both routes and reported, after due inquiry and full consideration, that the central route *via* Te Hana, Topuni Bridge, Kaiwaka, and Mount Pukekaroro was the best. Such a route would leave North Albertland, Te Arai, Hakarau, and Mangawai on the east, and Port Albert, Wharehine, and Otamatea on the west, and would almost equally divide the country, and bring the various settlements on both sides of the



(Courtesy Minister of Public Works, New Zealand.)

March 31, 1907, £919,730 were expended, and in addition £426,065 were spent on the improvement works and additions to open lines. Up to the date mentioned, the New Zealand government has made a net expenditure in all of £23,269,459 or over \$120,000,000 gold. The total length of railway is 3,353 miles, 21 chains, and of this 2,461 miles and 64 chains were open for traffic on March 31, 1907. Of this mileage of open lines, about 945 miles are in operation on North Island and the balance on South Island.

ment and evidence of a most satisfactory economic condition.

The following comprises excerpts from the Honorable Acting Minister's report and the illustrations which accompany the article are reproduced through the courtesy of the Acting Minister:

"RAILWAY-CONSTRUCTION.—The late financial year was the most active, as regards railway-works, of any year during the last quarter of a century. On new construction alone £919,730 was expended, and in addition to this the

line within practicable distances of the railway. "This report did not, however, seem to settle the matter in the minds of many of the settlers, as the agitation for a change of route still continued, and in May last the newly appointed Engineer-in-Chief—Mr. R. W. Holmes—was sent to the locality to personally look into the matter. Mr. Holmes went carefully over the whole route in company with Mr. Vickerman, the then District Engineer, and he entirely supports the view taken by Mr. Hales. Mr. Holmes points out that immediately to the northwards of Maungaturoto there is a ridge

that route. It will be quite possible to connect by this route with the navigable waters of the Kaipara Harbour—namely, at Te Hana, Topuni Bridge, and Kaiwaka.

"The vote proposed for the Helensville Northward Railway for the current year is £40,000.

"MAMAKU-TAURANGA.—The promised trial survey for this railway has been in hand during the year, and the field-work between Mamaku and Te Puke has been completed, but the report and plans are not yet to hand. As soon as

section to Waikohu is well in hand, and a tender for the Waikohu bridges has been accepted.

"The permanent survey of the line is finished for another three miles and a half, or as far as the twenty-seventh-mile peg. From that point to the summit at Rakauroa, a distance of fourteen miles, the location is not free from difficulty. Two trial lines have been run over this distance. The first, with gradients not steeper than 1 in 50, has had to be abandoned on the ground of expense; and the second, with grades up to 1 in 35 in places, is now under consideration. It is probable that a practicable line at a moderate cost will be obtained on the steeper gradient. From Rakauroa to Motu Township, a further distance of fourteen miles, the country is of a much easier character.

"The expenditure on this railway last year amounted to £18,428, and for the current year a vote of £20,000 is proposed.

"**NEW PLYMOUTH-SENTRY HILL DEVIATION.**—The deviation of the New Plymouth-Sentry Hill line commences near the Waiwakaiho Bridge, and extends to the New Plymouth Station, covering a distance of about one mile and three-quarters. The work was undertaken with a view to reducing the grades on the existing route, some of which are as steep as 1 in 40, and also for the purpose of avoiding the numerous level crossings at present existing—more particularly that of Devon Street, which is the main thoroughfare of the town. The new line is approaching completion, and will be ready for traffic at an early date.

"The expenditure last year amounted to £24,243, and the proposed vote for the present year is £15,000.

"**STRATFORD-ONGARUE.**—The section as far as Huiroa, nearly sixteen miles from Stratford, is nearing completion, and will shortly be available for traffic, and a commencement has been made with the Te Wera Section. The new section is an important one, as it will bring the line into touch with the main road from Whangamomona, and will thus be the means of drawing a largely increased traffic to the railway.

"Petitions have been presented to Parliament praying for a commencement to be made with the works at the Ongarue end of this line, and on the completion of the North Island Main Trunk Railway (from which this would really be a branch line) it would probably be convenient to transfer to this work a portion of the departmental staff and plant and a number of the workmen at present employed on the larger undertaking. Before this can be done, however, it will be necessary to have surveys made to definitely determine the point on the main line that will best serve for a junction station, and to exactly define the route of the first few miles of the branch line, which has not been definitely fixed at present. It is possible that Puketutu, in the Mokau Valley, may prove to be the better point of junction, and I propose to put the necessary surveys in hand to determine this question as soon as a suitable officer is at liberty.

"The expenditure on the Stratford-Ongarue Railway during the late financial year amounted to £12,881, and a vote of £20,000 is proposed for this year.

"**MOUNT EGMOND BRANCH.**—The works on this railway, up to and including the crushing station, are nearing completion, and it is expected that this portion of the line will be handed over to the Railway Department and the regular crushing of stone commenced by Christmas next.

"The expenditure on the line last year amounted to £17,258, and for the current year a vote of £15,000 is proposed.

"**NORTH ISLAND MAIN TRUNK.**—A very large amount of work has been carried out on this railway during the year, the expenditure having greatly exceeded that of any previous year since the works were commenced.

"At the north end the rail-head has advanced to the top of the spiral—two miles and a half beyond Raurimu, or 201 miles from Auckland—and rail-laying is now in hand southwards of that point. The formation-works beyond the spiral are well advanced, so that rail-laying as far as Waimarino and Makatote will probably proceed without interruption.



(Courtesy Minister of Public Works.)

several hundred feet in height which the line must cross, and to do this with the greatest ease it is necessary to keep at a good elevation, and this object is secured by locating it as proposed—viz., through Kaiwaka and close to Mount Pukekaroro. To deviate *via* Bickerstaffe would entail the line crossing navigable water close to Maungaturoto, and would locate it in a basin from which the only outlet would be by a long tunnel.

"As all the engineering authorities agree that the central route is the most direct, and the best, it has been finally decided to adopt

these have been prepared the survey will be extended to Tauranga as promised.

"**WAIHI-TAURANGA.**—Strong representations have been made to the Government regarding an alternative line to Tauranga from Waihi, and as there is a good deal to be said in favor of this route I have decided to have a trial survey made, so that a comparison can be made with the route *via* Mamaku and Te Puke.

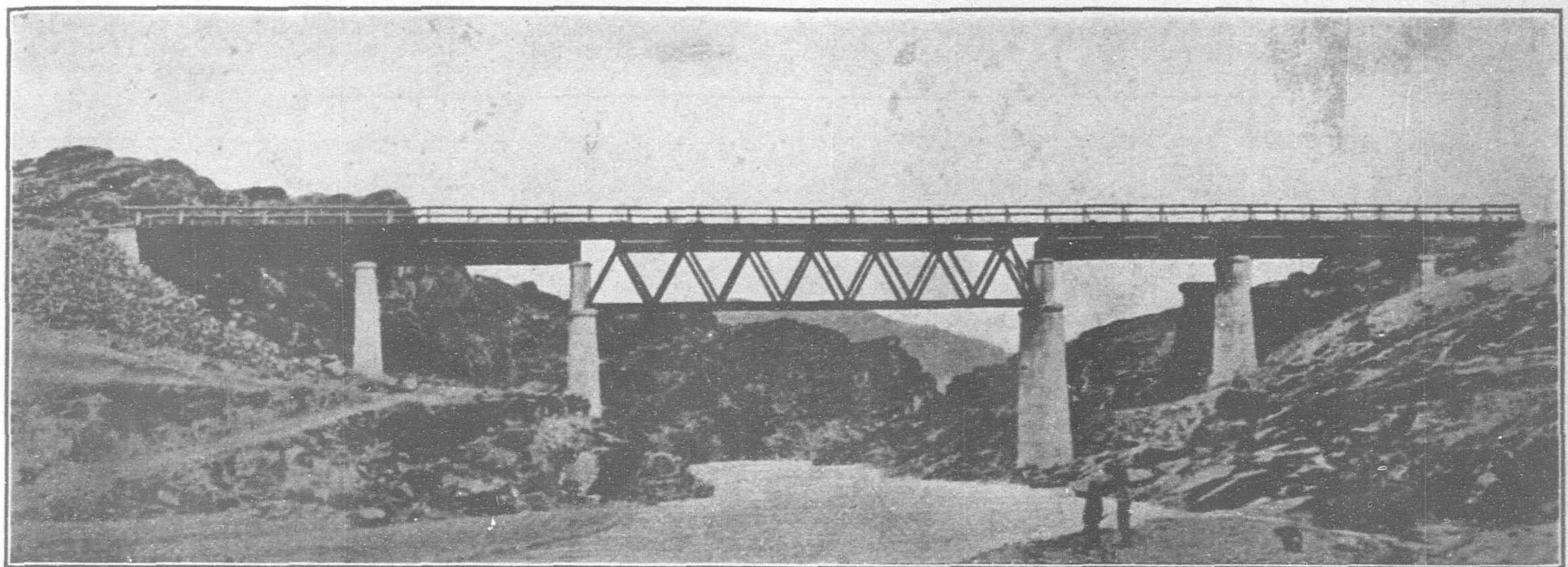
"**GISBORNE-ROTORUA.**—The section between Te Karaka and Puha, about two miles in length was opened for traffic in May last, the further

"A great deal of work has been done at the Makatote Viaduct, but the structure is still far from completion. The contract time expired on the 15th June last, but it is unlikely that the viaduct will be ready for the rails to be laid over it until March next. The contract for this work is held by Messrs. J. and A. Anderson, of Christchurch, who are also the contractors for the superstructures of the Manganui-o-te-ao

will reduce the coach service to eighteen miles, and by March, 1908, to Makatote, which will further reduce the gap to eleven miles. The last link in the chain will still take some little time to complete, as the eleven-mile section embraces three viaducts, four large bridges, and one tunnel, besides other heavy works. Two of these viaducts are being carried out by the Department's own workmen. That over

tinued for a time pending the receipt of tenders for the Arthur's Pass tunnel, but now that a contract for that work has been entered into operations on the Otira Section will at once be resumed, so as to complete the line to the tunnel-mouth.

"The tender of Messrs. John McLean and Sons for the Arthur's Pass tunnel, 5 miles 25 chains in length, was accepted in August last,



(Courtesy Minister Public Works, New Zealand)

OTAGO CENTRAL RAILWAY—COMBINED ROAD AND RAILWAY BRIDGE OVER THE MANUHERIKIA RIVER AT ALEXANDRA.

and Mangaturuturu viaducts further along the line. The concrete piers and abutments of the latter viaducts have already been constructed by the Department, and are awaiting the erection of the superstructures by Messrs. Anderson. Their contract time for these works expires in February next, but it seems unlikely at present that they will be completed by that date.

"The rails will easily reach Makatote by March, so that if the viaduct is completed by then rail-laying can be carried on to Manganui-o-te-ao, and, as soon as the latter viaduct is ready, can be continued to Mangaturuturu, and so on.

"At the south end of the line the section between Taihape and Mataroa—six miles in length—was handed over to the Railway Department for regular working in June last. The section between Mataroa and Waiouru—18½ miles—is nearing completion. The ballast-train has been running on it for some time, and it will be ready to hand over to the Railway Department by Christmas. The section from Waiouru to Rangataua—14 miles—has been used for goods traffic since May last, and the rails now extend to Ohakune, 3 miles further, and (by a temporary line) as far as the Hapuawhenua Viaduct—another 2 miles—making altogether an advance in the position of the rail-head at the south end of the line during the year of 26 miles. The first three miles beyond Waiouru, however, is on a temporary line. The permanent line along this section embraces some very heavy earthworks. It is well in hand, and is expected to be ready for platelaying in the course of a few months. When the rails are laid on this section, and the ballasting completed, the whole line to Ohakune will be handed over for regular traffic.

"The ballast-trains between Taumarunui and Raurimu and between Mataroa and Rangataua have been carrying passengers for some time, and the running at the southern end has now been extended to Ohakune. It is also proposed to shortly commence the issue of through tickets between Auckland and Wellington. The gap between the rail-heads is now only twenty-four miles, and over this length a coach service has been established on a good metalled road constructed by the Department in conjunction with the railway-works. By Christmas I expect to be able to arrange to carry passengers at the north end as far as Waimarino, which

the Toanui is nearing completion; and the Hapuawhenua (which is the longest viaduct on the line) is well in hand, but at present is only in the foundation stage, though much of the steelwork is already manufactured at the Department's workshops at Mangaonoho, and a start with its erection will probably be made during the present month.

"All the work is progressing satisfactorily, and, with favorable weather-conditions, I confidently expect that the rails will be connected between Auckland and Wellington not later than Christmas, 1908, as previously predicted.

"The expenditure on the railway last year, exclusive of permanent-way materials, was £362,101, and for the current year an appropriation of £330,000 is proposed.

"BLENHEIM-WAIPARA.—The work at the northern end of this line has been proceeded with throughout the year, and fair progress made. At the southern end the section between Ethelton and Tormore was opened for traffic in November, 1906, and the further section to Domett in March last. As considerable difference of opinion exists as to the location of the line beyond Domett, it is inadvisable to proceed with further construction-work at present. A survey party is now employed in closely investigating the different routes that have been suggested, but the results will not be available for some little time.

"With the cessation of construction-work at the southern end an increase has been made in the number of men employed at the northern end, and I hope to shortly have a further section at that end ready for rail-laying.

"The expenditure on the line last year amounted to £46,076, and for the current year an appropriation of £40,000 is proposed.

"MIDLAND.—The formation-works on the portion of the Manu Section as far as Kiwi Station are approaching completion and rail-laying will shortly be started.

"The new station-yard at Reefton has been completed, and is now in regular use, and platelaying between Reefton and Cronadun is in hand, and will shortly be finished. The Cronadun Station buildings are in course of erection, and the line to this point will soon be available for traffic.

"On the Otira Section, the Goat Creek and Rolleston bridges have been completed, some protective groins constructed, and a good deal of earthwork done. Operations were discon-

tinued for a time pending the receipt of tenders for the Arthur's Pass tunnel, but now that a contract for that work has been entered into operations on the Otira Section will at once be resumed, so as to complete the line to the tunnel-mouth.

"The section between Staircase Gully and Broken River was duly completed in time for the New Zealand Exhibition season as promised in last year's Statement. The formation-work beyond Broken River, which for two or three miles is of a very heavy character, is well in hand. On this length there are six tunnels, and the "headings" are driven through all of them; two are in process of enlargement, and one is completed. The contract for a steel bridge over Slovens Creek was let to Mr. G. M. Fraser in July last for the sum of £21,451. The date fixed for completion of the work is the 11th March, 1909.

"The expenditure on the Midland Railway during the late financial year amounted to £129,649. This amount was especially large in consequence of the effort made to complete the line to Broken River. For the current year a vote of £60,000 will be needed.

"WESTPORT-INANGAHUA.—The formation on the first section of this railway between Westport and Kahu, 5 miles 60 chains in length, is approaching completion. Some delay has occurred in obtaining delivery of timber required for the bridges on this section, but the bulk of it is now to hand and the balance is expected shortly. A contract for the erection of the bridges is now being prepared.

"Last year's expenditure amounted to £8,575, and for the current year a vote of £10,000 is asked for.

"NGAHERE-BLACKBALL.—When this railway was authorised in 1901 it was to have extended to the right bank of the Blackball Creek near the Blackball Township, the length being about two miles and a half, but it has now been decided to carry it on to the left bank of Ford's Creek, increasing the length by 70 chains. At this point the line will junction with the railway now in course of construction by the Paparoa Coal Company, so that it will serve both the Paparoa and Blackball Mines. It is not intended to introduce a Bill this session to authorise the construction of any new railways, but a Railways Authorisation Bill will be

brought down to authorise this short extension and one or two other small extensions of existing works which have been found to be necessary.

"The earthworks on the first two miles and a half are nearly finished, and the remainder about half done. The large bridge over the Grey River has been finished for some time, and the bridges over Blackball and Ford's Creek have recently been completed. The other bridges required are in hand. The rails have been laid on a portion of the line, and further rail-laying will be started shortly. The whole railway will be available for traffic

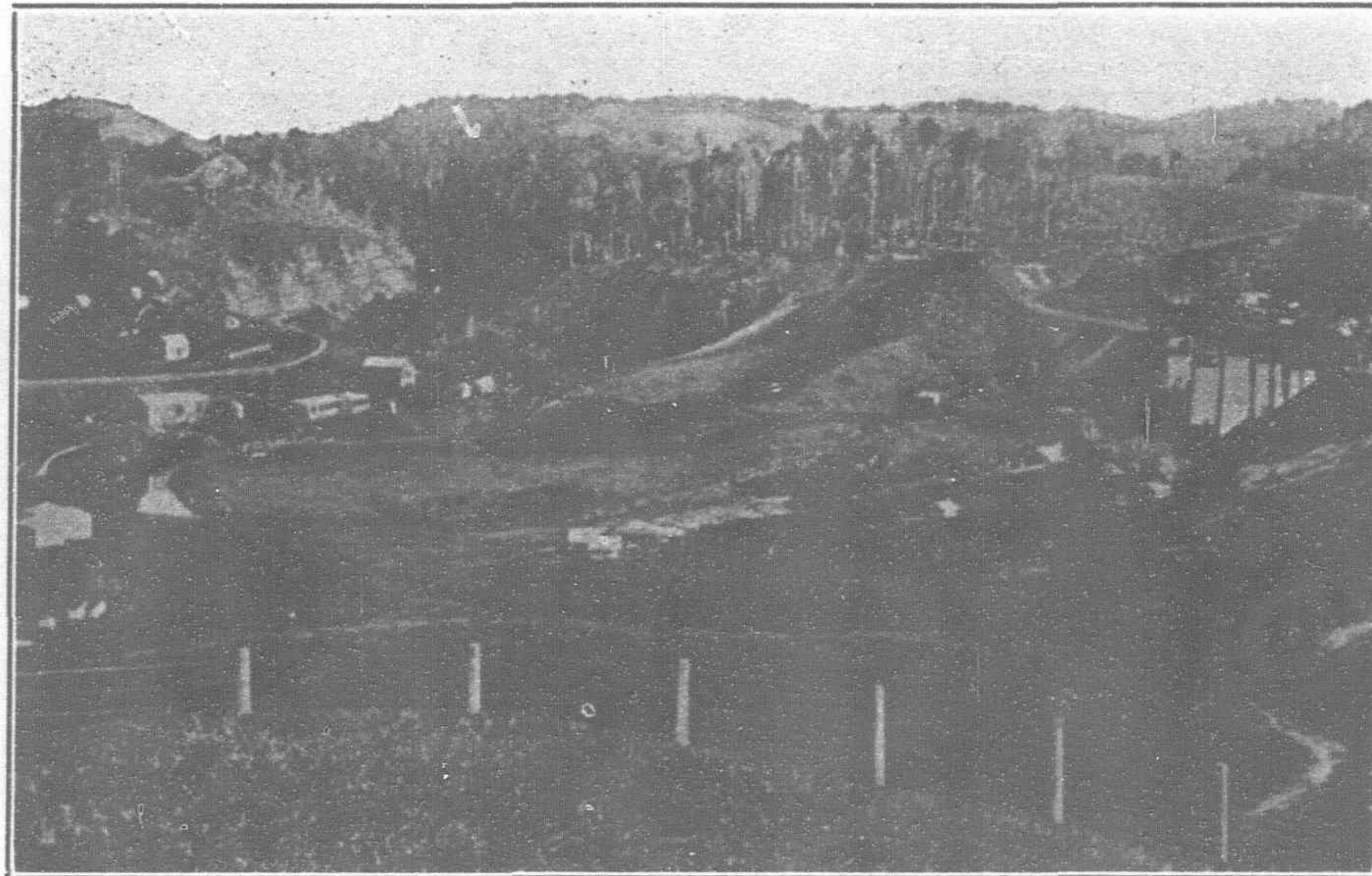
against last year's vote, but for the current year an appropriation of £4,000 will be needed.

"OTAGO CENTRAL.—The section between Chatto Creek and Alexandra was opened for public traffic in December, and the further section to Clyde in April last. On the completion of the line to Clyde construction-works were discontinued, and it is not proposed to take any further section of this line in hand at present. To remove any doubt as to the best route for the extension of the line when the time arrives to continue construction operations, an examination of the country on the

construction-works speedily followed. The formation is of so easy a character that it will probably all be finished in a few months, and rail-laying is about to be begun.

"No vote for this line appears on the estimates, however, as the authorizing Act established a special account against which all expenditure is charged.

"CATLIN'S-WAIMAHAKA.—The bridge over the Catlin's River is completed, the formation is finished to Houipapa Station, and the rails are laid to the same point. A quarry has been opened up, a stone-crushing plant installed for



(Courtesy Minister Public Works, New Zealand)

HORSE-SHOE CURVE NEAR TURANGARERE ON THE NORTH ISLAND MAIN TRUNK RAILWAY—DESCRIBES THREE-QUARTERS OF A CIRCLE

well before the Paparoa Coal Company's line is completed.

"The expenditure last year amounted to £11,596, and a vote of £15,000 is provided on the estimates this year.

"GREYMOUTH-POINT ELIZABETH.—It was stated in last year's Public Works Statement that the above railway had been completed and opened for traffic. An extension of about four miles is now proposed, however, to open some very fine coal-seams that have been fully proved in that locality. The survey of the line is in hand, and as soon as a definite estimate of the cost is obtained I propose to ask the House to make provision for the extension proposed out of the State Coal-mines Account.

"HOKITIKA-Ross.—The first seven miles of this line—viz., to Ruatapu, near Lake Mahinapua—was opened for regular passenger traffic on the 9th November, 1905. The formation of the remainder of the line to Ross is nearly completed, and the whole line would have been finished and open for traffic ere this had it not been for the very great delay which has taken place in the completion of the Totara Bridges contract. The timber first delivered by the contractor for these bridges was condemned, and great delay has taken place in supplying other satisfactory timber in its place. Some deliveries have recently come to hand, and the work of erecting the bridges is in progress, but it will still take several months to complete the contract, lay the rails, and finish the railway. A contract has been entered into for the station buildings at Ross.

"Last year's expenditure on the line amounted to £21,628, and for the current year we propose a vote of £20,000.

"CULVERDEN-HAMMER.—It was mentioned in last year's Statement that a good motor-car service was proposed to be established between Culverden and Hanmer. The cars have now arrived, and are running between Culverden and the Waiau River.

"Practically no expenditure came to charge

right bank of the Clutha River and a further examination of that on the left bank has been made. The country on the left bank for some considerable distance out of Clyde is of a heavy and forbidding character, and it was suggested that a cheaper line could probably be obtained by crossing the river opposite Clyde Township, running for some miles up the opposite bank, and recrossing well before reaching Cromwell. The report of the Engineer does not, however, confirm this view.

"The expenditure on the Otago Central Railway last year amounted to £38,274, which, with the value of the permanent-way materials issued, brings the gross total expenditure on the line up to £1,270,918. For the current year a vote of £10,000 is required to meet expenditure since the 1st April last and a few small liabilities at present existing.

"LAWRENCE-ROXBURGH.—Considerable progress has been made with the works on this line, and the formation of the first section to Evans Flat, four miles in length, is nearly finished, and the further section from Evans Flat to Big Hill is well in hand. It is considered probable that a relocation of the line beyond this point would shorten the proposed tunnel through Big Hill and lighten the earthworks on the down grade towards Beaumont. Formation-works on this part of the line are therefore not being proceeded with at present, pending a careful personal examination of the country by the Engineer-in-Chief, which will take place shortly after the close of the session of Parliament.

"The expenditure on the line last year amounted to £15,959, and for the current year a vote of £20,000 is proposed.

"GORE-WAIKAKA.—The construction of this railway was authorized by "The Waikaka Branch Railway Act, 1905," the Gore-Waikaka Railway Finance Company having offered to take up debentures to the amount of £50,000 for the purpose of defraying the cost. The company did not, however, actually provide the money until April last, and the survey of the line was at once put in hand, and con-

the purpose of providing good rock ballast, and a commencement made with the ballasting of the line. Formation-work is also in hand beyond Houipapa for a distance of nearly two miles.

"At the Waimahaka end of the line the heavier portion of the work is well in hand and proceeding steadily.

"Last year's expenditure on the railway amounted to £18,145, but it is proposed to shortly increase the number of men employed and to accelerate the rate of progress. A vote of £40,000 is therefore proposed for the current year.

"RIVERSDALE-SWITZERS.—The bridge-work which was in hand when last year's Statement was brought down has since been completed, and work on the formation has been resumed. It is proposed to complete the formation this year to the Wendonside Road, about nine miles and a half from Riversdale. As the earthworks are not of a heavy character, and were partly formed several years ago, they should be completed during the coming summer, and a start made with rail-laying. When the section referred to is nearing completion the further section to Waikaka will be taken in hand.

"Out of last year's vote the sum of £3,551 was expended, and for the present year a vote of £8,000 is asked for.

"OREPUKI-WAIKAKA.—The formation between Waihoaka and Te Tua, three miles and a half, has been completed and the rails laid, but no ballasting has yet been done. A suitable ballast-pit has been proved on the further section between Te Tua and Waikaka, and the earthworks as far as this pit are actively in hand so as to enable the ballast-supply to be reached at an early date. Ballasting between Waihoaka and Te Tua will be taken in hand as soon as possible, and the balance of the formation to Waikaka will be undertaken simultaneously. A contract has been let for the station buildings at Te Tua. As this line opens up a large area of valuable forest it is desirable to expedite its completion as much as possible.

"The expenditure last year amounted to £9,955, and for the current year a vote of £20,000 is proposed.

TOTAL APPROPRIATIONS FOR RAILWAY-CONSTRUCTION.—In addition to the amounts already mentioned, a vote of £70,000 is proposed for permanent-way materials, £2,000 for surveys of new lines, and £1,000 for land claims and other old liabilities on construction account. These items bring the total proposed appropriation for railway-construction purposes (exclusive of the Waikaka Branch Railway Account) up to £775,000. This is less than last year's vote, but is still a very substantial sum, and its

intricate undertaking, and a little time will be occupied in carrying it out; but the work will probably be completed by about the end of the financial year.

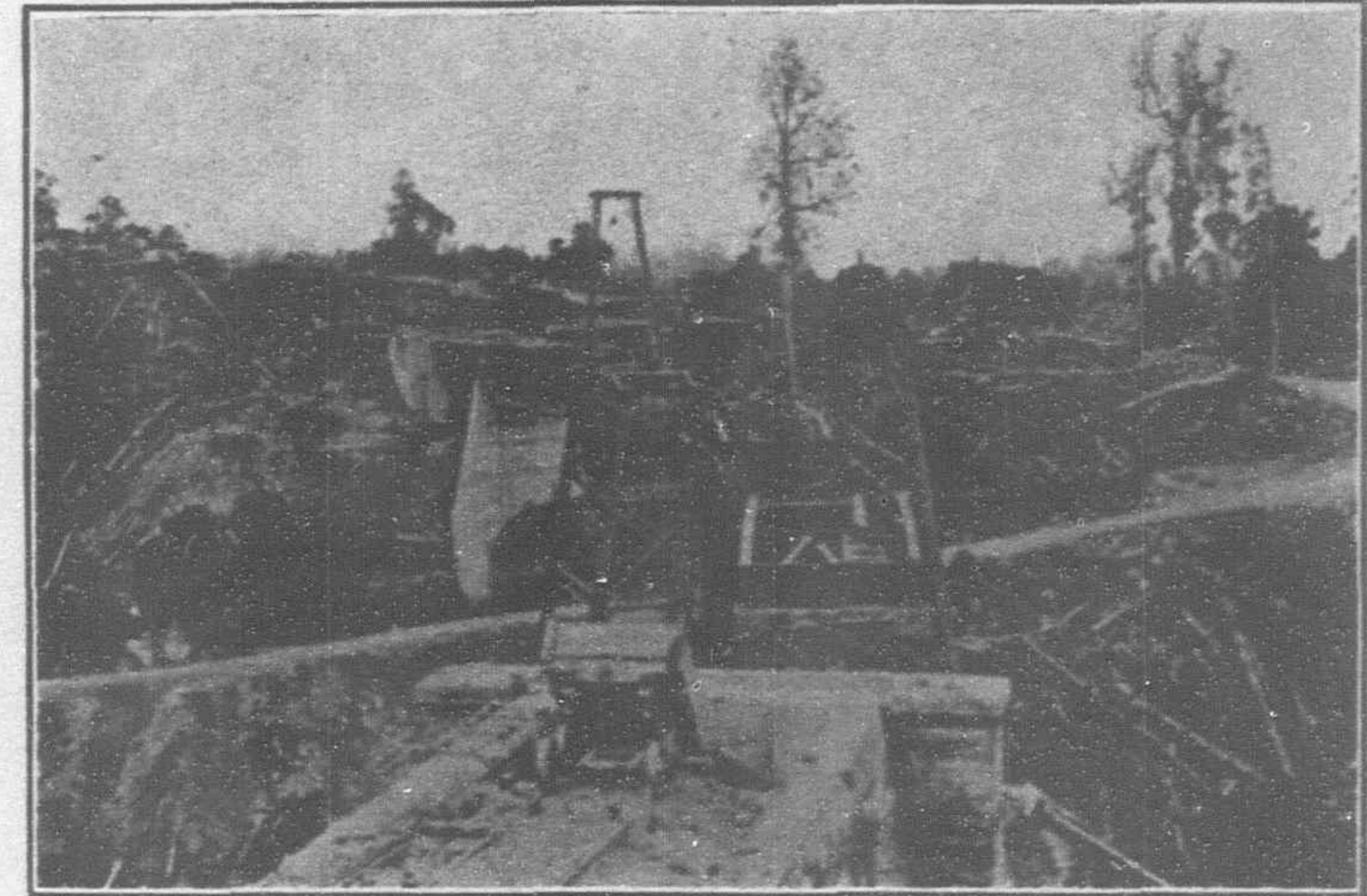
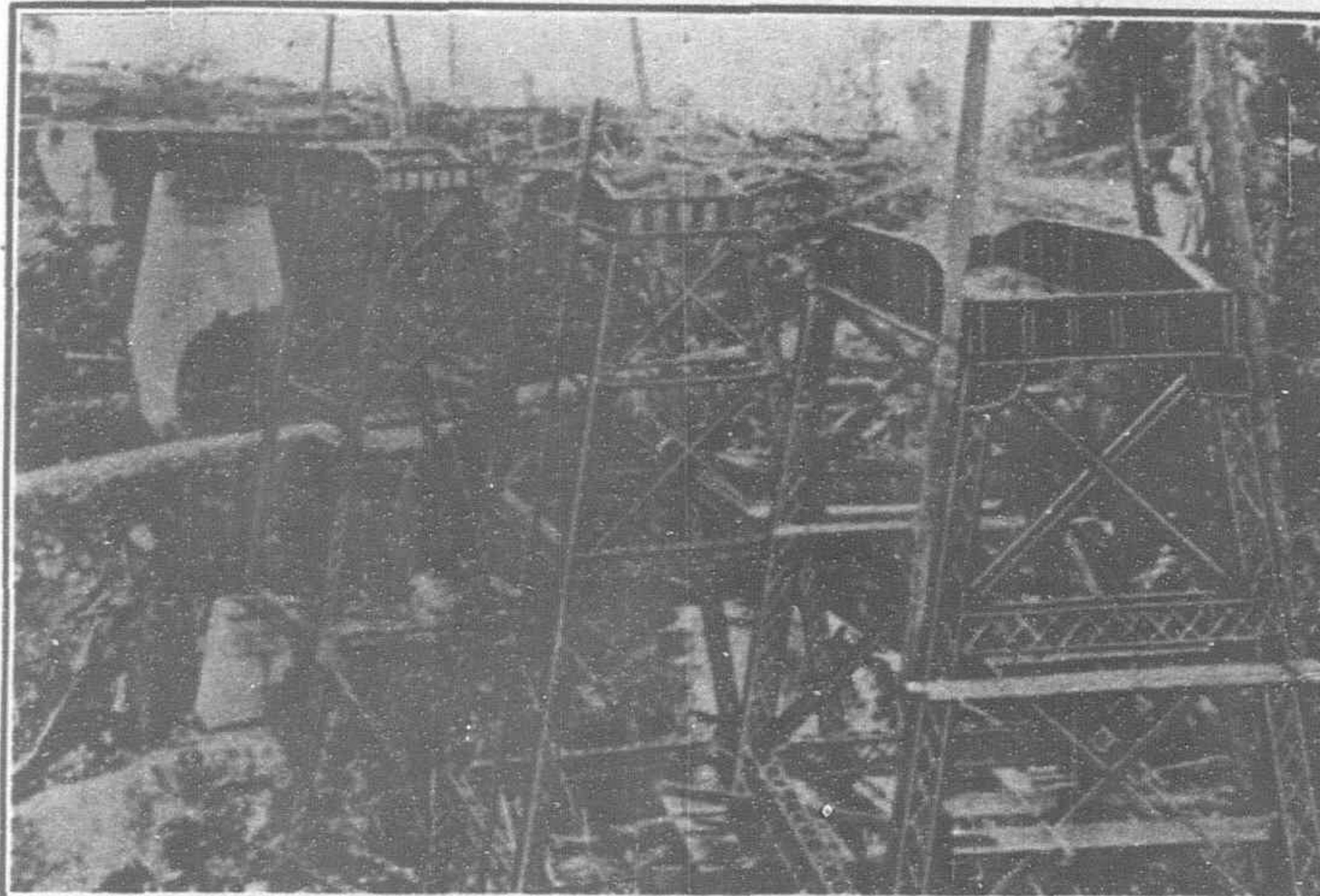
"The Dunedin-Mosgiel duplication is also progressing favourably. The foundations and abutments of the bridges between Dunedin and Caversham are completed, and contracts have been let for the superstructures. A large amount of earthwork has also been done, and a commencement with the new Caversham Tunnel is about to be made. A start will also shortly be made with the formation-works between Caversham and Mosgiel. The line

Dilly, which was built at the Kowloon shipyard many years ago for the Timor Government. The vessel will cost \$36,000 and will be of the following dimensions:

Length, 112 ft. between perpendiculars; extreme breadth 18 ft. 6 in., and depth of hold 9 ft. She will be built of teak.

NEW OIL LIGHTER

The *Meifoo*, launched last month from the yards of Messrs. W. S. Bailey & Co. at Kowloon, is the first of that type of oil lighters built in



Courtesy Minister of Public Works, New Zealand

TOANUI VIADUCT ON THE NORTH ISLAND MAIN TRUNK RAILWAY. THIS VIADUCT IS BUILT ON A 10-CHAIN CURVE; GRADE I IN 66; ONE 36 FT. SPAN, FOUR 64 FT. SPANS AND THREE PIER-HEAD SPANS OF 36 FEET ON STEEL PIERS; 112 FEET FROM RAIL-LEVEL TO BED OF STREAM.

expenditure will add materially to our existing railway facilities.

OTHER RAILWAY-WORKS.—The amount expended on additions to open lines during the year was £308,150. The bulk of this expenditure was on rolling-stock, and the remainder on essential works to enable the Railway Department to deal efficiently with its business. For the current year a vote of £350,000 is required under this head.

Considerable progress has been made in connection with the Hutt Railway and Road improvement, notwithstanding the fact that unforeseen difficulties occurred in connection with obtaining suitable rock for the sea-wall. The quarries at Pencarrow, from which the bulk of the stone is obtained, are capable of supplying ample quantities of suitable material, but the transport of the same by water to the works is affected by weather-conditions. The line has already been duplicated for about four miles, extending from Lower Hutt to Paparangi Point. A further extension of the duplication to Ngahauranga will probably be opened during the present financial year, and when this is done the formation of the main road will be completed and the metalling of same put in hand. The vote proposed for the current year is £70,000.

Under 'The Railways Improvements Authorization Act, 1904,' work has been carried out between Auckland and Penrose, Addington and Rolleston, and Dunedin and Mosgiel. In connection with the first-mentioned work provision has been made for the substitution of bridges in place of level crossings over all public roads, and also for the reconstruction of the Parnell Bridge, which has been designed to cross the road in one span instead of three as formerly. The duplication is making good progress, and, with the exception, perhaps, of the Parnell Bridge, will be nearly completed by the end of the financial year.

Very good progress has been made on the Addington-Rolleston duplication, the formation being already complete, so that platelaying can be put in hand shortly. An important part of the work is the remodelling of the Addington Junction station-yard. This is an

will cross practically the whole of the main roads between Dunedin and Mosgiel by means of bridges, thus obviating the existing level crossings. The work is one of considerable magnitude, and cannot be completed within the current year.

"The total expenditure out of the Railways Improvements Authorization Act Account last year amounted to £81,957.

"For the current year provision has been made on the estimates to the extent of £200,000—namely, Auckland-Penrose, £60,000; Addington-Rolleston, £40,000; and Dunedin-Mosgiel, £100,000.

WELLINGTON-MANAWATU RAILWAY.—As the North Island Main Trunk line is expected to be completed by the end of next year, it is desirable that the question of the purchase of the Wellington-Manawatu Railway should again receive attention, as, if it is decided to purchase in terms of "The Railways Construction and Land Act, 1881," it will be necessary to give twelve months' notice to the company. Such notice should therefore be given at an early date if it is to mature before the Main Trunk line is finished.

"Having given the matter very careful consideration, the Government has decided to at once give notice to the company of its intention to take over the railway in twelve months' time."

NEW TUGBOAT CYKLOP LAUNCHED

The new tugboat *Cyklop*, built by the Hongkong Whampoa Dock Company for the Norddeutscher Lloyd Co. was successfully launched and christened at the slips of the company, January 27th. The vessel is 100 feet long, 20 ft. beam and ten feet deep. She is equipped with triple-expansion engines and circular multitubular boiler and can work at a pressure of 170 lbs. to the square inch. It will be used by the company for service at Bangkok.

The Hongkong and Whampoa Dock Co. has secured the contract to build a steam tender for the Portuguese government to replace the

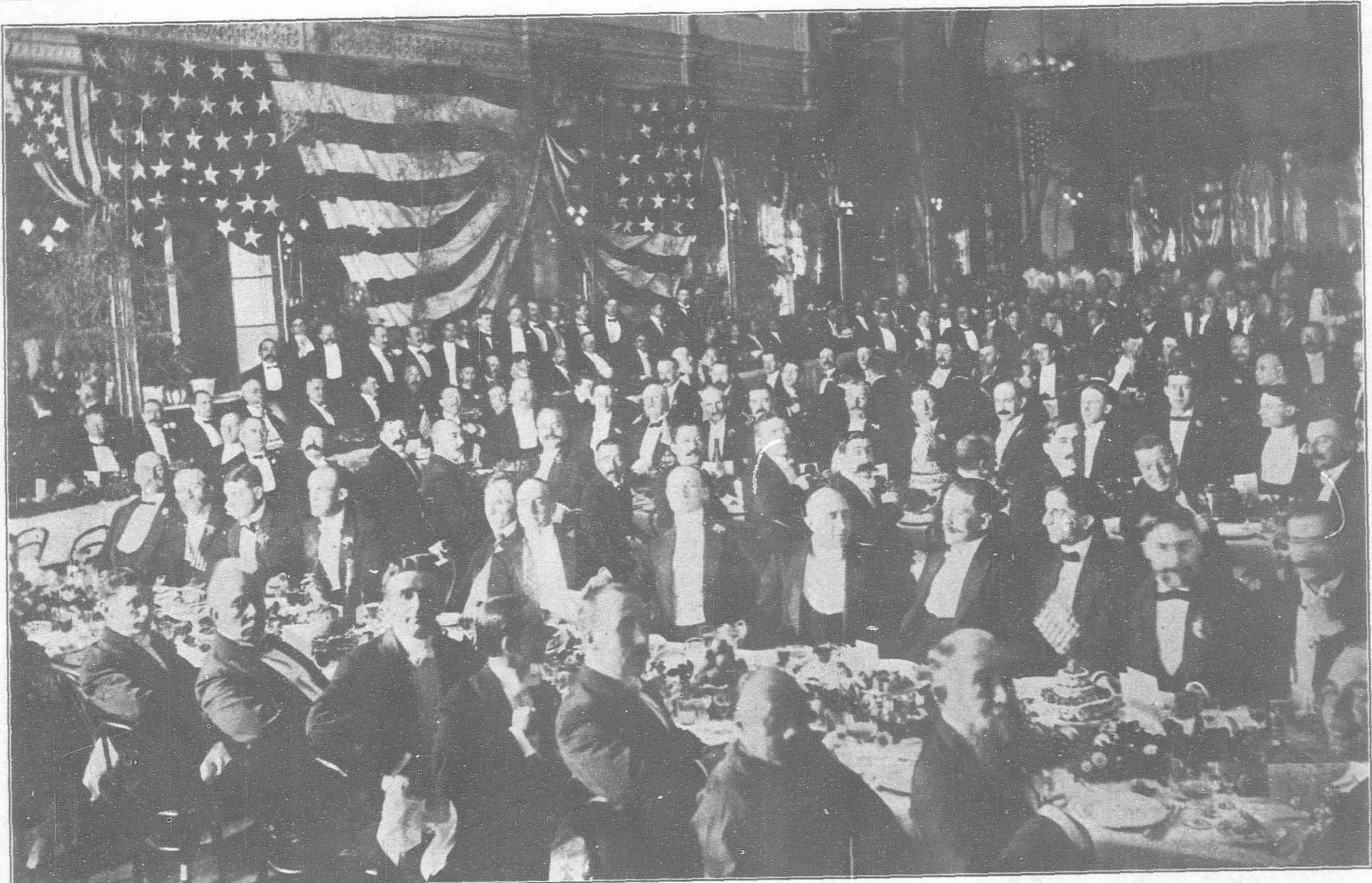
Hongkong. The vessel is 150 feet between perpendiculars, beam moulded, 35 feet, depth moulded 7 feet and a capacity of 180,000 gallons. It has ten oil watertight carrying compartments. It has a forward watertight compartment for a pump room in which a Duplex pump is installed and which is connected with each oil compartment so that any one may be emptied independently. The vessel is supplied with steam pipes for scalding out the oil compartments, and as there is no boiler on board steam will have to be secured from outside. The vessel is built of open hearth steel, says the *China Mail*, and looks exceptionally strong. She is fitted with two pole masts and derricks which will facilitate the carrying of case as well as bulk oil. The vessel was built for the Standard Oil Company.

DALNY DOCK AND RAILWAY

RAILWAY EXTENSIONS AND IMPROVEMENTS

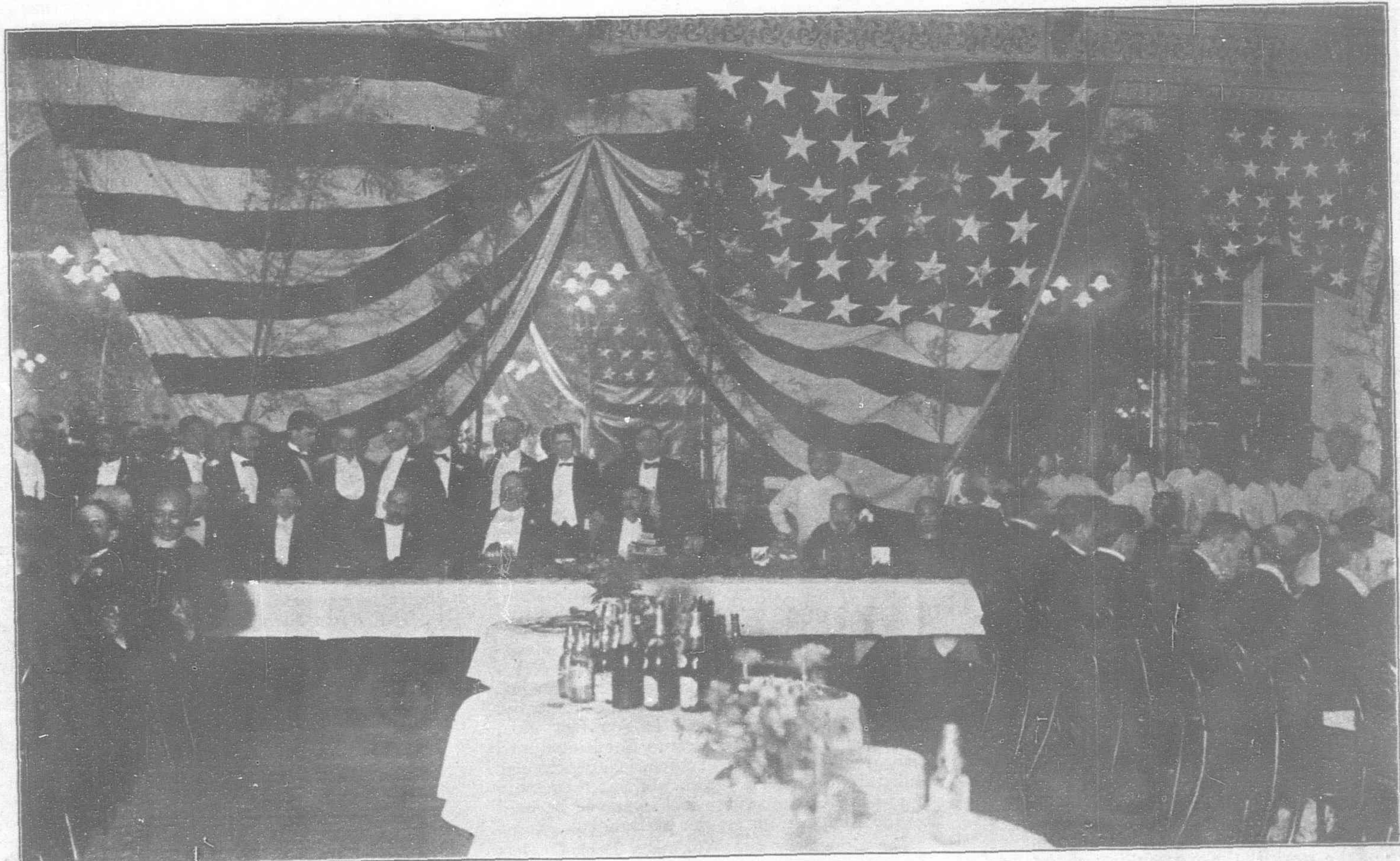
The *Ryoto Shimpō*, the only newspaper published in the Dalny consular district, reports that at a recent meeting of the South Manchurian Railway Company held at Tokyo that company voted to transfer its headquarters from Tokyo to Dalny, maintaining a branch office in Tokyo; also to raise a foreign loan of 80,000,000 yen, giving the president of the company, Baron Goto, absolute power to fix the rate of interest on the said loan. This statement has also appeared in several vernacular newspapers in Japan.

The *Ryoto Shimpō* further states that the South Manchurian Railway company intends to expend 100,000,000 yen, approximately \$50,000,000, to be divided (in yen) as follows: For broadening the gauge for the whole length of the railway, 20,000,000; for improving the harbor of Dalny, 5,000,000; for double tracking the railway from Dalny to Sojatung (the first station south of Mukden), 9,600,000; for capitalizing the Fushun and Yantai coal mines, 4,000,000; for buying land and erecting godowns, 8,000,000; for capitalizing the marine transportation service, 10,000,000; for improving the railway between Antung and Mukden, 22,000,000; and for a reserve fund, 11,400,000.



(Courtesy Am. Association of China)

BANQUET TO HON. W. H. TAFT, SHANGHAI, OCTOBER 8, 1907.



(Courtesy Am. Association of China)

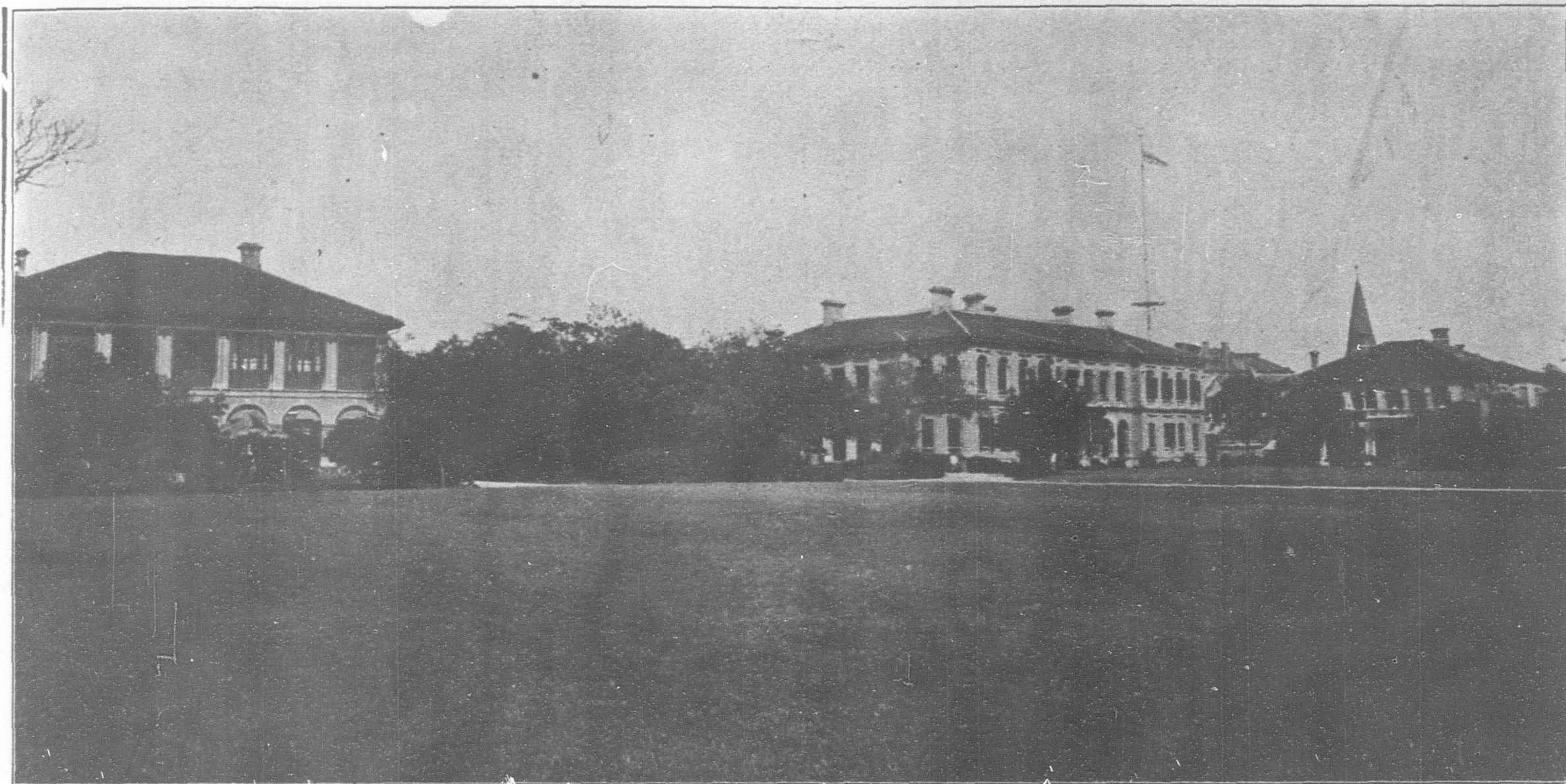
BANQUET TO HON. W. H. TAFT, SHANGHAI, OCTOBER 8, 1907.

MEMORIAL OF THE AMERICAN ASSOCIATION OF CHINA

Through the courtesy of the American Association of China, the FAR EASTERN REVIEW takes pleasure in presenting the memorial addressed to the President and Congress of the United States and setting forth the need of more

I.—LAWS—INADEQUACY OF THE “COMMON LAW.”—The main body of laws which Congress has extended to Americans in China is that embraced within the meaning of the term “common law.” Pursuant to the Treaties of

to determine matrimonial causes. It has also applied the American law of domicile to Americans in China and has found that the treaties of extradition between the United States and other countries do not apply to China. The



Senior Vice-Consul's House.

Courtesy Am. Association of China.

Consular Offices.

BRITISH CONSULATE GENERAL, SHANGHAI

Consul General.

adequate laws and an American Federal building in Shanghai, the latter to replace the present insignificant building now occupied by the American consul general, so as to add some dignity to the office. This building would contain suitable quarters for the United States Court, for the Commercial Agent, U. S. Health Officer, Consular Inspector and plenty of space for an American Post Office. The memorial is carefully prepared and the Journal of the Association in which it appears is illustrated with a view of making a comprehensive comparison between the consular headquarters of America and the other nations represented at Shanghai. The plates used in illustrating this article in the REVIEW were kindly placed at our disposal by the Association. Following is the memorial:

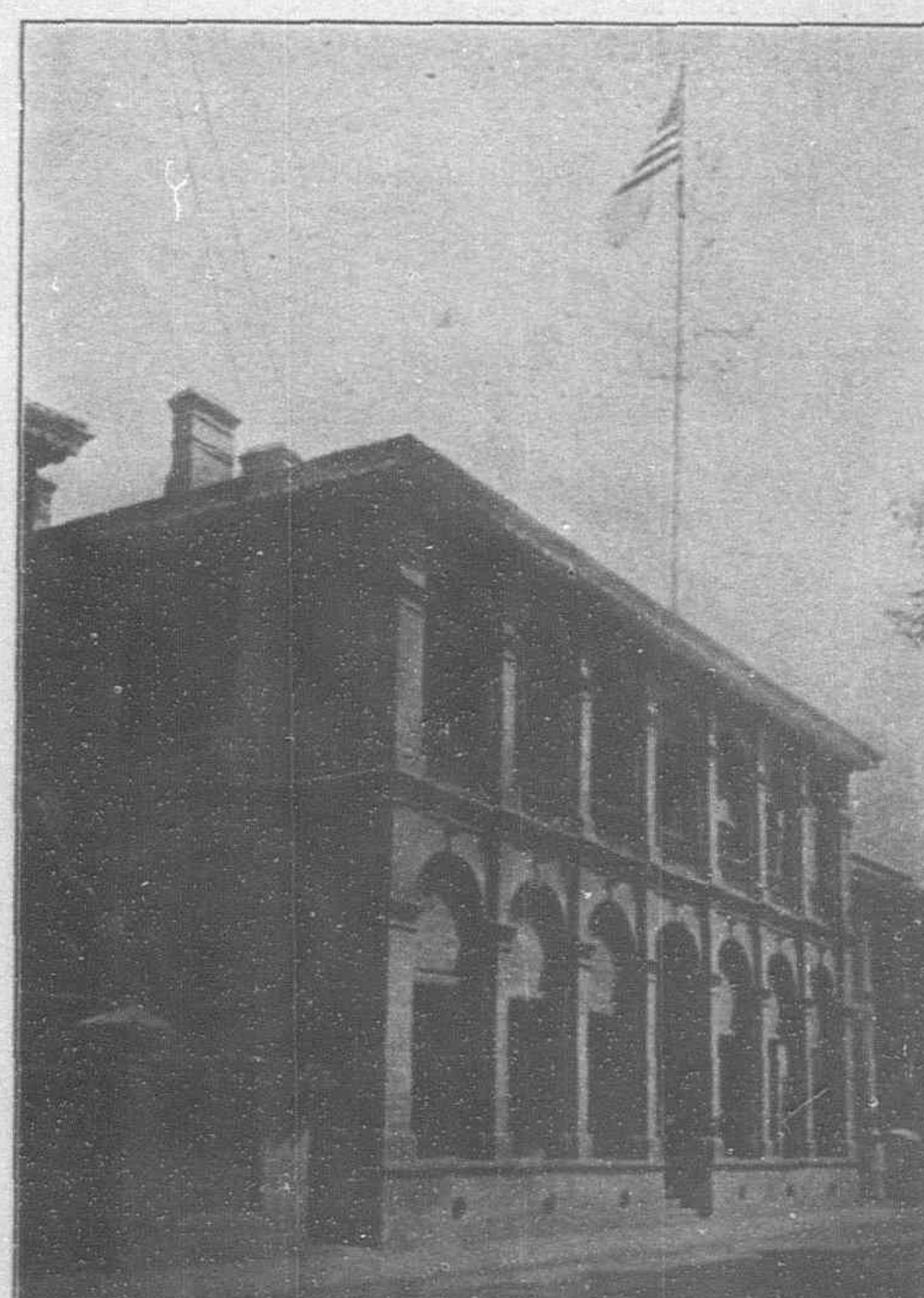
Memorial of the American Association of China to the President and Congress of the United States on the need of a more Complete Body of Laws for Americans in China and an American Federal Building in Shanghai.

TO THE PRESIDENT AND CONGRESS OF THE UNITED STATES:

The Honorable William H. Taft, in an address delivered in Shanghai during his recent trip around the world, dwelt at some length on the need of a more complete body of laws for Americans in China and the necessity for an American Government building in Shanghai.

Since these are matters of vital importance to American interests here, the American Association of China takes this occasion to submit to you a statement, amplifying the facts upon which the observations of the Secretary of War were based, and to petition that these subjects receive special attention during the coming session of Congress.

Extraterritoriality of 1844 and 1858, Congress enacted statutes clothing the American Consuls in China with judicial functions and vesting them with jurisdiction to apply the principles of the “common law, equity and admiralty.” The Act of June 30th, 1906, creating the United States Court for China, did not amplify the jurisdiction formerly exercised by the Consular Courts. The American law of extra territoriality has not been developed by legislation or by judicial interpretation since the original Statutes of 1848 and 1860 were enacted. There is no such thing in the United States as a national common law, and since Congress has not indicated what the term “common law,” as used in the Statute was intended to comprehend, it is well nigh impossible to apply the principles of law now in force in China with any degree of certainty. Before the United States Court for China was established, there was no uniformity in the administration of the law by the Consular Courts. When the United States Court for China was organized, it was confronted with a number of important jurisdictional questions, and, in order to determine them, it became necessary to interpret the term “common law” as used in the Statutes. This term was held by the Court to include those general principles of the common law of England and the Acts of Parliament passed in aid thereof which were adapted to the situation and circumstances of the American Colonies at the date of the transfer of sovereignty, and which were incorporated generally into the laws of the various states. Experience has demonstrated that the law as it now stands is unsatisfactory and altogether inadequate, on account of its vagueness and indefiniteness, because of many omissions, and by reason of anachronisms and harsh provisions which are repugnant to modern ideas of justice. The Court has held that it has jurisdiction in probate matters, and that it has not jurisdiction

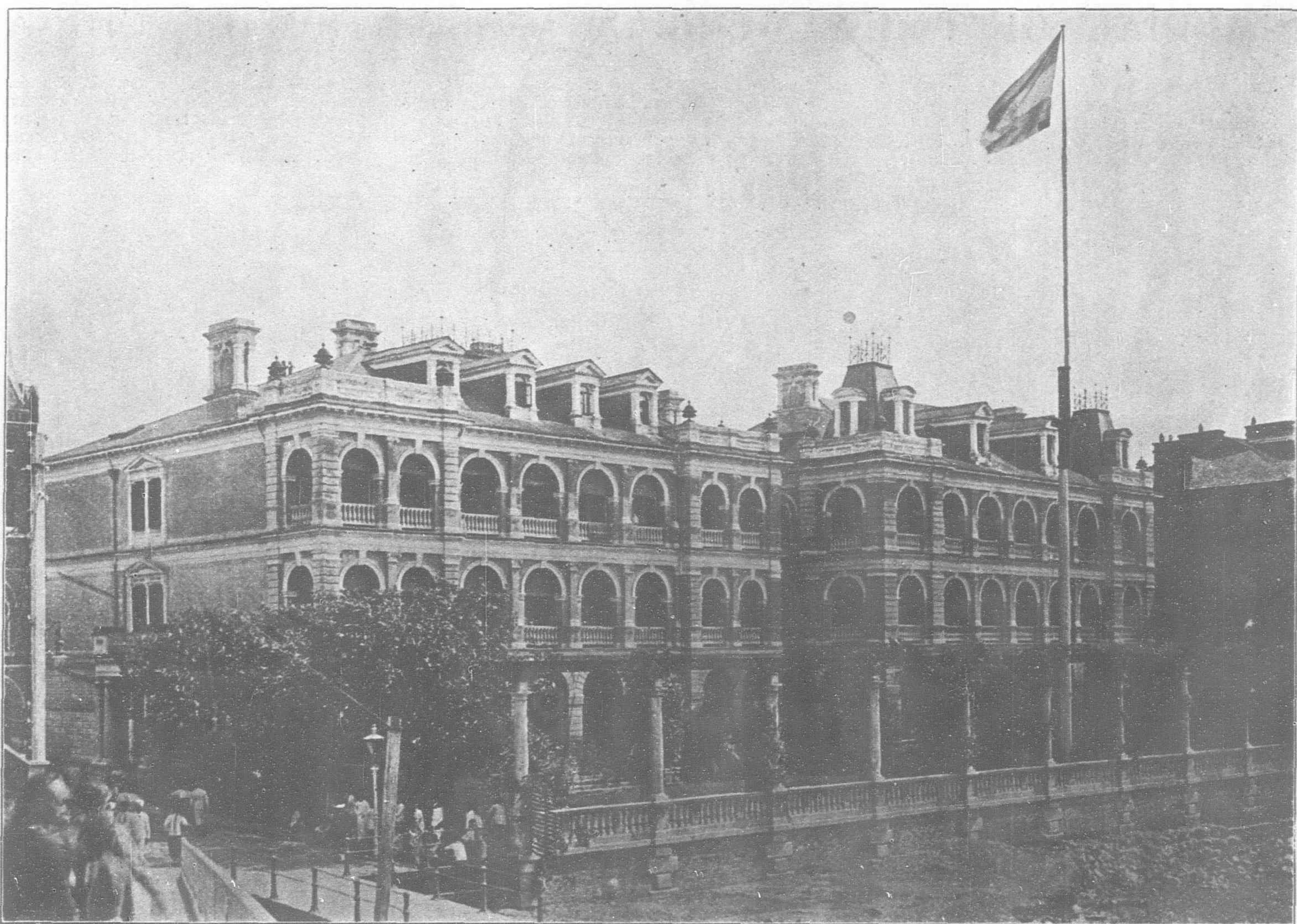


Courtesy Am. Association of China.

AMERICAN CONSULATE GENERAL, SHANGHAI

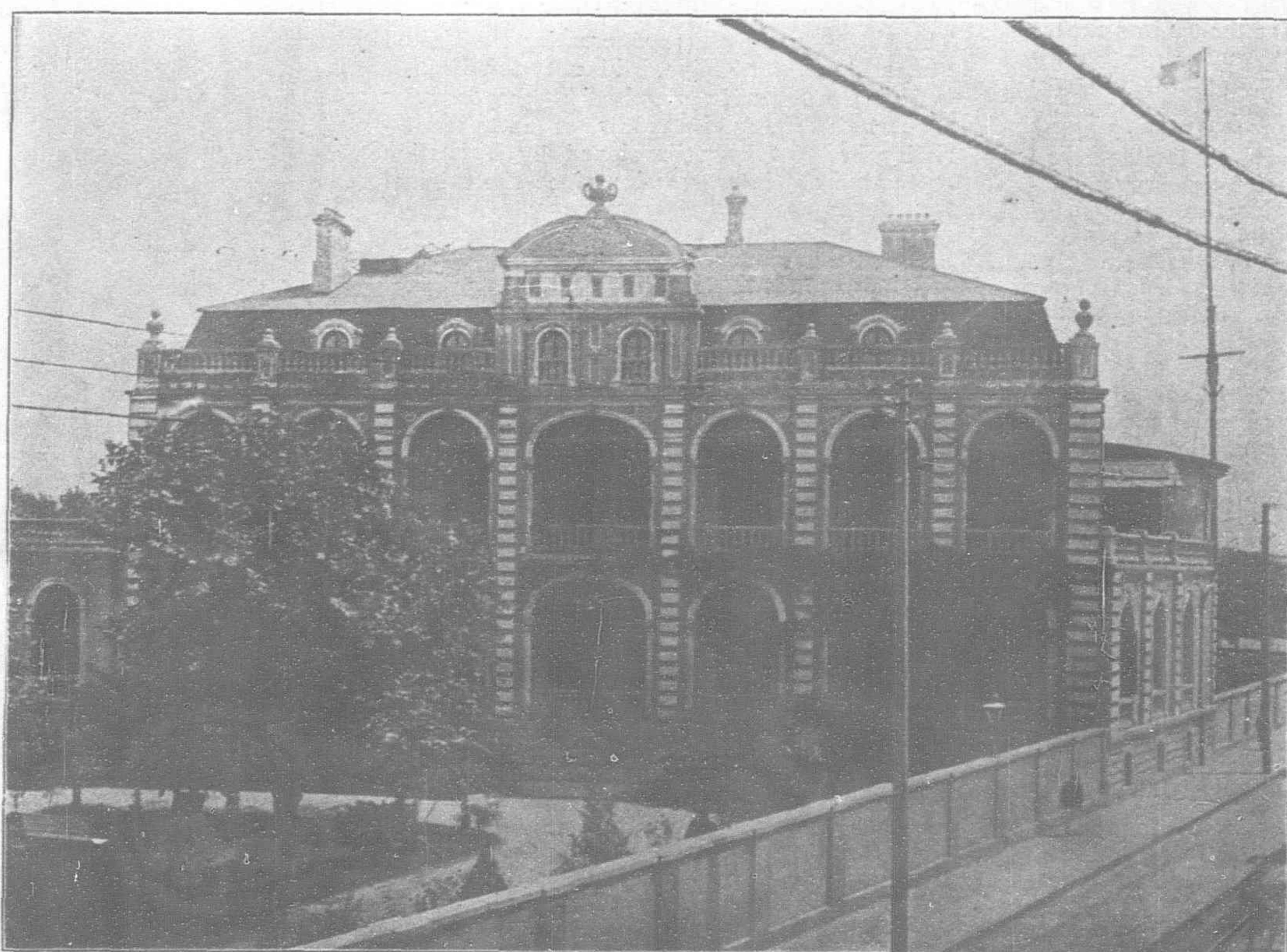
(On same scale as German Consulate.)

In this building accommodation is found for: U. S. Post Office. U. S. Court—Court Room, Judge's Chambers, District Attorney's Office, Clerk's Office, Marshal's Office, Witnesses and Jail. U. S. Consulate—Consul-General, Shipping Office, Land Registry, Secretary, Mixed Court Assessor, Interpreter, Chinese Writers, Comprador, Messengers, etc.



Courtesy Am. Association of China.

GERMAN CONSULATE GENERAL, SHANGHAI



Courtesy Am. Association of China

RESIDENCE OF FRENCH CONSUL GENERAL, SHANGHAI

American residents of China, at the present time, are in a position similar to that of the American residents of Japan in 1881, and the statement contained in the memorial addressed by the latter to Congress at the time applies with equal force to the present situation in China. That memorial contained, among other things, the following statement:—

"For us there is no statute of frauds. There is no bankruptcy legislation. . . . Imprisonment for debt has not been abolished. The disabilities of women at the common law remain unaltered. We have no statutes of limitation, and none providing for conditional 'bills of sale or chattel mortgages. In many

task of administering estates in accordance with the principles of the common law. Efforts in this direction are bound to prove unsatisfactory. The rules of the common law have been modified to such an extent by Acts of Parliament and by the administration of the ecclesiastical courts in England, and the subject has been so thoroughly covered by Statutory enactment in the various states of the Union, that an attempt on the part of the Courts to follow strictly the rules of the ancient common law will deprive heirs of many rights now universally secured to them by modern legislation. There is great need of a simple, expeditious and inexpensive method for the settlement

can acquire an extraterritorial domicile in China in the same manner that domicile is acquired in other American jurisdictions. If the Appellate Court should reverse this ruling, the effect would be that not only the estates which have already been closed would be disturbed, but it would also put the Court to the necessity in future of administering estates in accordance with the laws of forty-six different commonwealths. On account of the importance of the subject, and the unsettled condition of the law relating thereto, it is suggested that it be considered by Congress in connection with the law of probate.



(Courtesy of the American Association of China.)

HOUSES FOR BRITISH CONSULAR STAFF

"other respects investigation will show how unfavorable is the legal status of a citizen of the United States resident here."

It is manifest from the foregoing that the difficulties of the situation cannot be overcome by judicial interpretation, but must be met by Statutory enactment.

LAW OF PROBATE.—One of the most important branches of business which the American Courts in China are called upon to transact is that relating to the administration of the estates of Americans deceased in China. This is a subject in which every American in China is vitally interested, and in respect of which there is much uncertainty and confusion in the law as it now stands. In some cases our consular officers have settled estates administratively, and in other instances they have undertaken to administer them judicially; some have endeavored to follow the common law, and other the laws of the states in which the deceased was originally domiciled. Perhaps no decision of the United States Court for China has given such general satisfaction as that pronounced in the "Roberts Will Case," in which the Court determined that it had jurisdiction in the matter of the administration of estates. The Court is now confronted with the

of estates. Many of our citizens are scattered throughout the Empire, and whilst it often happens that estates are small, this fact does not diminish the importance of an inexpensive and expeditious method of settlement.

It has been suggested that a public administrator be appointed for the consular district in which Shanghai is located. This would very much expedite the settlement of estates, and would be a great boon to Americans who reside in this part of China. Shanghai being the commercial centre of the Empire, a majority of Americans of property reside in this Consular district. There are no corporations here which undertake the administration of estates, and it is difficult, on account of the confusion of the laws and the transitory character of foreign residence here, to find Americans who will accept the responsibilities of administration.

In this connection attention is also invited to the desirability of having settled by statutory enactment the law of domicile in China. This question lies at the root of extraterritoriality, and determines the civil status of our citizens here in the matter of the disposition of their estates. The United States Court for China has decided (contrary to the rule laid down by the British Court), that an American citizen

CRIMINAL LAW.—The Criminal Law now in force in China must necessarily be revised. The common law is fatally defective in that it fails to define many offenses which are universally covered by the statutes in the various States of the Union, and, furthermore, as the law now stands, there is no scale of punishments provided for the guidance of the Court. In this connection attention is also invited to the fact that there has been considerable discussion among Americans in China on the subject of the need of assessors to sit with the Court in the trial of criminal cases for the purpose of aiding the Court in passing upon the facts. The Association is of the opinion that some provision should be made covering this matter, since it is inadvisable to extend the jury system to China at this time.

ADMISSION OF LAWYERS TO THE BAR.—There is no Statute on the subject of the admission of lawyers to the bar of the American Courts in China. The United States Court for China was called upon to meet this question at the very outset, and it did so by publishing a rule requiring applicants to qualify in the usual way, taking an examination and furnishing certificates of moral character satisfactory to the Court. Since this action of the Court has evoked considerable discussion both in China

and in the United States, the Association recommends that some such provision be inserted in the law for China as that contained in Section 281 of the Code of the District of Columbia, which is as follows:—

"That the Court shall have full power and authority from time to time to make such rules as it may deem proper respecting qualification, examination and admission to practice in such Court."

In the matter of the admission of lawyers to practice in the Consular Courts, provision should be made requiring applicants to file certifications of admission to the bar of the United States Court for China in districts where American lawyers reside. In outlying districts where there are no lawyers, the consular

provision would conform with the practice of other Western powers in China.

LAW OF CORPORATIONS.—On account of the growth of our trade, and the consequent necessity for the organization of our merchants into joint-stock companies, it is suggested that a law be enacted providing for the organization of corporations in China. Under the laws of the British Colony of Hongkong, any seven persons, regardless of nationality, may, upon complying with certain general requirements of the Hongkong Ordinances, secure a charter for a limited liability company having British nationality in China and elsewhere. The great advantage to British prestige in thus placing under the British flag and protection important enterprises and large aggregations of capital

States Court for China should exercise the same jurisdiction in admiralty and bankruptcy cases which is exercised by the United States Court at home. Some provision should also be made for a law of divorce for Americans residing in China.

JURISDICTION OF CONSULAR COURTS.—Experience has demonstrated that it is impossible for the United States Consul-General at Shanghai to perform his judicial functions, and, at the same time, discharge in a proper manner his duties as commercial and diplomatic agent of the nation. It is therefore recommended that he be relieved of all judicial authority and that the same be conferred upon some official of the United States Court for China. It is also recommended that in matters of probate jurisdiction all consuls out of Shanghai be empowered to administer estates of the value of one thousand dollars United States currency. The probate work of the Consular Courts should be entirely under the supervision of the United States Court for China, through which all necessary reports to the Government at Washington should be made.

SALARIES OF COURT OFFICIALS.—Attention is called to the fact that the expense of living in Shanghai has increased rapidly in recent years and, on account of the peculiar conditions which exist here the pecuniary demands upon officials of foreign nations are heavy. By reason of the metropolitan character of Shanghai as well as the peculiar ideas on the subject of official form and dignity entertained by the Chinese, it is incumbent upon the officials of our Government to live in a manner that comports with the importance of their offices. To this end liberal salaries and allowances for quarters are recommended. It may be noted in passing that the Justice of the Supreme Court of Great Britain in Shanghai, a position which corresponds with that of the Judge of the United States Court for China, receives in salary and allowances a sum equal to \$12,500 per annum, and, after retirement, is entitled under the law to an annual pension of \$7,500, while the Judge of the American Court only receives \$8,000 per annum, without further allowances.

The usefulness of the Court will be greatly enhanced if its officials are put in a position to live in a manner corresponding to the customs of the officials of other leading nations represented in Shanghai. The position of the Court in China will be determined largely by the significance which the Government at home attaches to its importance as evidenced by the salaries paid and the character of the men sent out as its officials. Good men cannot be induced to enter and remain in the service unless they are well paid; and they will leave as soon as they realize that every year spent in acquiring valuable experience in China is an added disqualification for renewing the struggle for life at home. In the opinion of the Association, the present salaries are inadequate.

BRITISH LAW OF EXTRATERRITORIALITY IN CHINA.—It may not be amiss to call attention in this connection to the manner in which Great Britain has developed her law of extraterritoriality in China. Her treaties with China are identical with those of the United States; and in the beginning, the laws which she extended to her subjects here were the same as those Congress has extended to Americans in China, namely, the common law, equity, and admiralty. By successive foreign jurisdiction acts and numerous orders in Council Great Britain has amply provided for the protection and government of her subjects in China. To such an extent has British jurisdiction in China been developed that there is almost no legislative or judicial phase of the law in England which, if necessary in China, has not its counterpart here.

THE LAW TO BE APPLIED.—It is confidently believed by the Association that it is possible by a single Act of Congress to provide a body of laws for Americans in China, which will be for all practical purposes as adequate as that provided by Great Britain for her subjects in this country; and, in order to accomplish this purpose, we recommend that, in addition to special provisions covering the peculiar needs



(Courtesy of the American Association of China.)

GERMAN POST OFFICE, SHANGHAI
(Quarters for Postrat and Postal Staff on upper floors.)

officer should have discretion to permit any suitable person to appear in behalf of litigants.

EXTRADITION.—The subject of extradition is one that should unquestionably be dealt with by Congress at an early date. As the law now stands, no fugitive from justice can be delivered up to other governments by the American authorities in China, nor can said authorities make demand upon other governments for the return to China of fugitives from justice. Persons accused of crimes in China, whether of American or other nationality, who have escaped to the United States, can not be returned here for trial. This results in the escape from punishment of a large percentage of Americans who commit crimes in China, and tends to make this jurisdiction an asylum for American citizens who are fugitives from justice from other countries. This difficulty could easily be overcome by providing that for purposes of extradition China shall be regarded as American territory. Such a

of all nationalities needs no comment. Substantially all of the joint-stock companies which operate in China are organised under these ordinances. If an American law of corporation should be extended to China, it would result in manifest advantages to American merchants in China and would encourage them to organise under their own laws.

LAW OF REAL PROPERTY.—Attention is called to difficulty which foreign nations operating in China experience in applying the foreign laws of real property in China. The difficulty rises over the question whether the Court, in cases involving realty, shall be governed by American law in force in China, or by the Chinese law. In order to obviate further difficulty on this subject, it is recommended that there be a specific enactment providing that in administration of estates realty shall be regarded as personality.

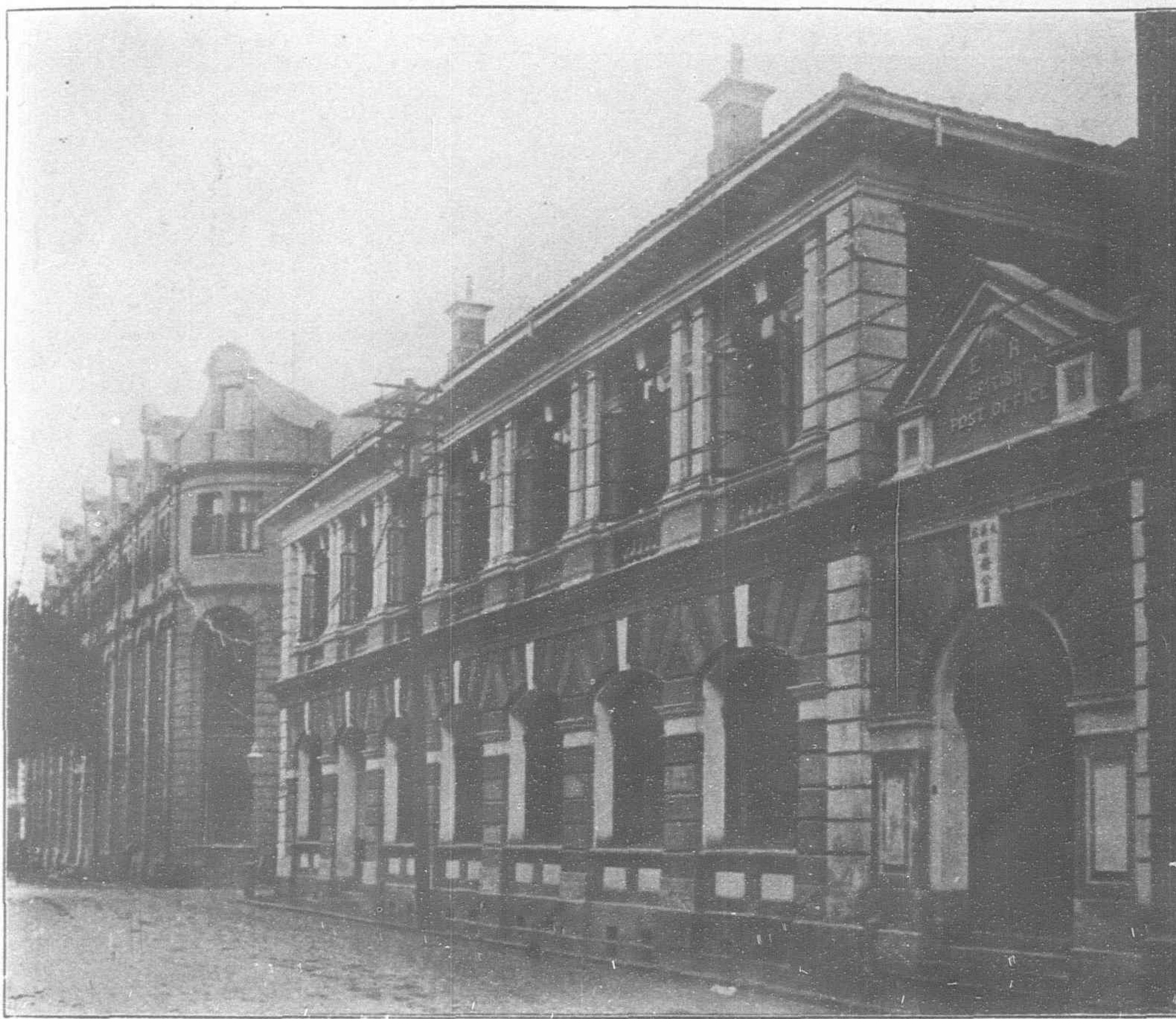
BANKRUPTCY, ADMIRALTY, AND DIVORCE.—It should also be provided that the United

of the situation as above outlined, the laws of the State of California, or the laws of the District of Columbia, in so far as they may be applicable and not in conflict with the special acts of Congress relating to extraterritorial jurisdiction, be extended to China.

II.—BUILDINGS. The United States shared with England in the commercial opening of

rental. It is not too much to say that the position of the United States in Shanghai, in respect of its official equipment, is the fair subject of criticism by Chinese and foreigners alike, and the occasion of humiliation to patriotic Americans.

The shabby appearance presented by American Consulates in China can be lived down,



(Courtesy of the Am. Association of China)

BRITISH POST OFFICE, SHANGHAI (QUARTERS FOR POSTMASTER ON UPPER FLOOR)

China; at one time American shipping contributed over a third to the entire tonnage engaged in the China trade; American trade in 1905 sent one-fifth of the imports and took one-seventh of the exports of China; and American citizens constitute one-seventh of the non-Asiatic population of Shanghai. Notwithstanding all this, the visitor to Shanghai is at once struck by the fact that the United States must be ranked among the second-class powers. On the river front are the Consulates of the first-rate powers, France, England, Germany and Japan; in the back streets are those of the second-rate powers, the United States, Denmark, Holland, Belgium, Austria-Hungary, Sweden, etc. The first-rate powers provide accommodation adequate to the position of their Consuls-General, and houses for the rest of the staff, in due proportion for the married and the unmarried; the second-rate powers also provide proper houses, but not always adjoining the Consulate, except only the United States, which provides none. Houses within a convenient distance of the quarter within which a Consulate must be situated are not easily obtainable even in Shanghai, while in other ports generally the number of foreign houses is fitted exactly to the number of foreign residents; and in Shanghai or at the other ports the rents demanded for the limited supply of houses take a considerable share of the moderate salaries given to American consular officers.

While other powers in general provide sufficient offices in suitable buildings for efficient working, well-furnished residences for their Consuls-General, and residential quarters for their assistants, in marked contrast the American government occupies rented premises of a low class, obscurely located on a back street, and, on a renewal of the lease, is subject to the risk of expulsion or the exaction of an exorbitant

and the national prestige so necessary in Asiatic affairs can, in the course of time, be established by the force of character of the men appointed to consulates, provided always that their character is such as to give them a leading position among communities of high moral and intellectual standing; but, unaided by an impressive setting the task has to be undertaken a new on each new appointment. The question of prestige has, however, a very practical bearing on diplomacy, whether applied to political or to commercial matters. China is a country just emerging into the full light of modern conditions. In the past, her attitude towards other powers was one of haughty superiority, and the only influences she recognised as having weight were those of England and Russia, and, within the past twelve years only, Japan, the pressure of whose military forces she had experienced; toward the demands of other powers, not possessing the same prestige, her natural and instinctive attitude was frequently one of *non possumus*, and the obtaining of recognition for just demands has always been so much the more difficult. America, the greatest commercial nation of the world, debarred by her traditional policy from asserting her position by force of arms, has wilfully deprived herself of the natural advantages derivable from her wealth, and has allowed herself to be relegated, in the minds of the Chinese nation, to a position among the secondary commercial powers.

The impairment of efficiency in the staff, already receiving salaries at lower rates than those given by other powers, and with great difficulty in finding houses, compelled to pay abnormally high rents, can be remedied only by having suitable accommodation provided by the government. More important still, however, is the deficient office accommodation provided for both consulate and court at Shanghai.

hai and elsewhere. At some ports it is only necessary to set aside one room in the Consul's house to serve as his office; at other ports, where a room only is available, there should be two or three offices, for the Consul, for his clerical staff, and for a court room or waiting room; and at Shanghai the office accommodation provided is not adequate for the work even of one of the minor powers. The following figures show the numbers of the Shanghai Consular and judicial staff (exclusive of Asiatics) of each of the principal powers arranged according to the number of their nationals resident in Shanghai, and the accommodation provided for them.

GREAT BRITAIN.—Consular staff, 11 British. Judicial staff, 8 British.

Offices (Plate A a) 24 rooms, besides 2 court-rooms.

Quarters: Consul-General, house (Plate A b) of 10 rooms.

Senior Vice-Consul, house (Plate A c) of 8 rooms.

Judge, rent allowance.

Assistant Judge, rent allowance.

For the rest of the staff a terrace (Plate B) is provided with 5 houses, of either 4 or 6 rooms; those for whom quarters are not provided receiving rent allowance. (N.B.—In China only principal rooms are counted—reception rooms and bed rooms).

UNITED STATES.—Consular staff, 5 Americans. Judicial staff, 4 Americans.

Offices (Plate C), 5 rooms, besides three for Post Office.

Quarters: none.

GERMANY.—Staff, 17 Germans.

Offices Quarters.—Two large three-storeyed buildings (Plate D) are provided for offices, for the Consul-General's residence, and for quarters for the staff.

FRANCE.—Staff, 9 French.

Offices, 10 rooms.

Quarters: Consul-General, house (Plate E) 10 rooms.

For the rest of the staff a total of 16 rooms occupied by 6 employees, the others being quartered elsewhere.

The other smaller ports may wait, but the provision of the necessary accommodation at Shanghai is a matter of great urgency. Shanghai is the commercial center of the Chinese Empire. Its foreign trade alone exceeds two hundred and fifty million dollars annually, in addition to a large distributing trade inland and coastwise; the capital value of the land and buildings within the foreign settlement may be put at over two hundred million dollars; it is the banking center for both foreign and Chinese interests, and for the financial operations of the Chinese government; of its foreign imports, excluding Asiatic produce and including only European and American products, the United States supplies about forty per cent.; and of the non-Asiatic inhabitants of eighteen nationalities, Americans constitute one-seventh. Shanghai, too, is becoming a center of thought, and its intellectual influence for wise reform and sound development is extending to all parts of China, through its newspapers and by the thousands of men from other provinces who visit the port. Whilst other ports must receive attention in due course the Association feels that every year lost in attending to the needs of Shanghai is an added injury to American interests.

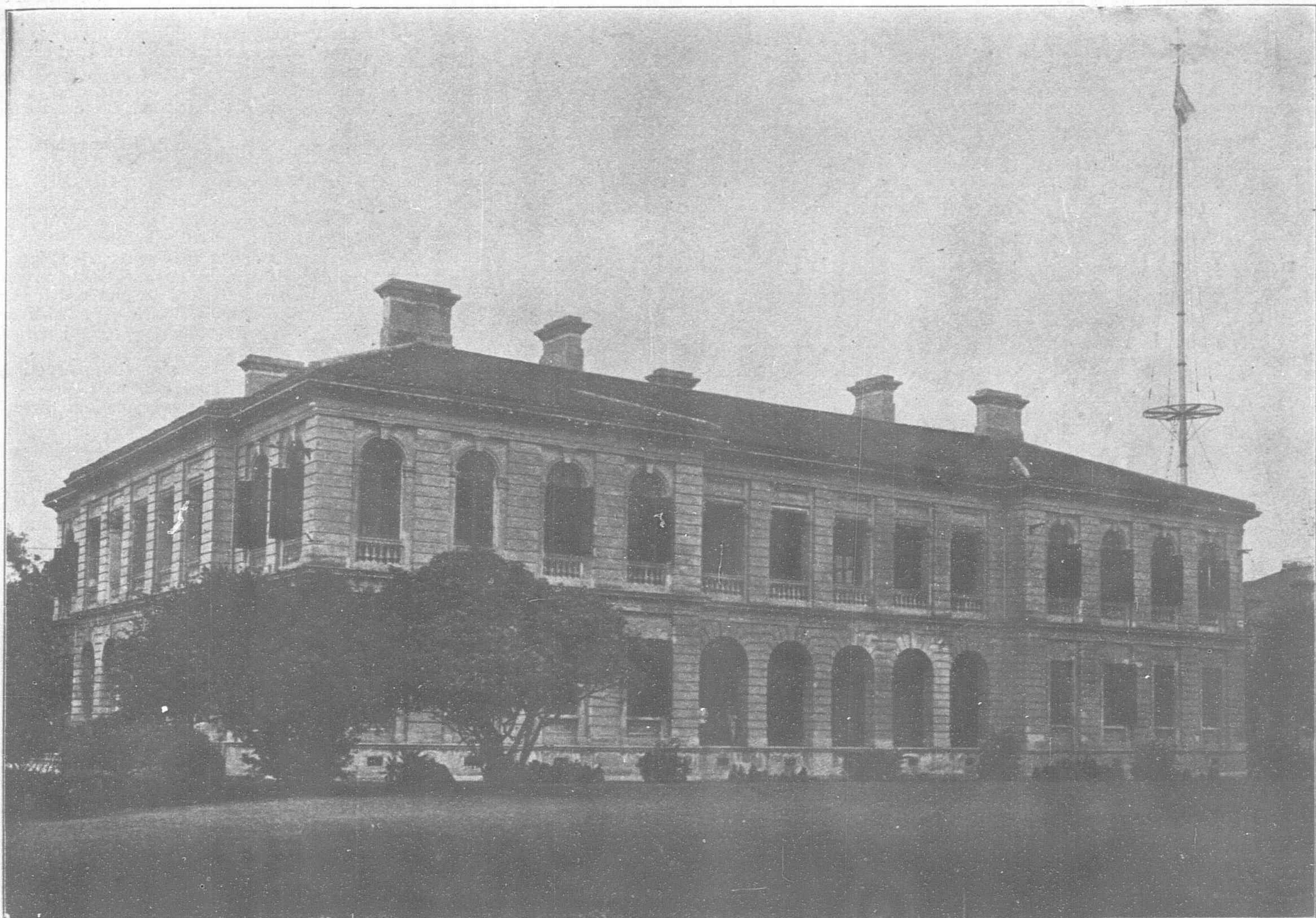
A cogent reason for immediate action is found in the fact that suitable sites in a suitable location, not already covered by buildings of a superior class, and therefore obtainable at a reasonable price, whether in the old American or in the English Settlement, are rapidly becoming fewer owing to the great increase in the foreign population of Shanghai and the consequent demand for eligible sites for business purposes. Real estate values have risen within the past few years to high figures; and, as there is not the slightest indication of any land speculation, such as would be indicated by frequent re-sales, there is every reason to believe that this advance will continue, and that equally suitable unimproved sites will not be so easily obtained in the future. Moreover construction in Shanghai is slow, and at least three years must be allowed for acquiring the land, preparing plans, and erecting the buildings.

As a question of sentiment the offices of the American government should be situated in the old "American Settlement," which in 1863, on the initiative of Consul General Seward, was amalgamated with the "British Settlement" to form that self-governing little republic known officially as the "Settlements of Shanghai north of the Yangkingpang," and called commonly the "International Settlement,"

in un-American surroundings, the officers of the court are called upon to pay rents which in the case of the Judge, must be over one-fourth, and, in the case of the Clerk, over a third of his salary. The minimum provision which should be made is the following:

Offices: At least two court-rooms, an office for each member of the judicial staff, a law library, and waiting rooms.

stituted at present, it is cruel and inhuman to confine human beings in the American jail at Shanghai. The rooms are dark and poorly ventilated, stifling in the summer, depressing at all times, and liable at any time in spite of the greatest care to become a germinating center of disease. The building having no yard, it is impossible for the prisoners to take physical exercise of any kind. Furthermore,



(Courtesy Am. Association of China)

OFFICES OF BRITISH CONSULATE AND COURT, SHANGHAI

or, not infrequently, the "Anglo-American Settlement." Land on the frontage of the former American Settlement is not now easily obtainable, but every effort should be made to place the U. S. federal buildings there, in close proximity to the German and Japanese Consulates. Parenthetically it may be observed that the designing of the buildings and supervision of their erection should be left to Shanghai architects, who know the needs of the climate, the requirements of work in Shanghai, the capabilities of the workmen, and the treacherous character of the sub-soil.

Assuming that a piece of land of suitable size can be acquired, the following notes may be of use, based on the experience of old residents in Shanghai:—

U. S. Court.—The present provision for the United States Court for China consists of ONE ROOM of moderate size, which serves for court room, Judge's chambers, District Attorney's office, Clerk's office, Marshal's office, Witnesses' room, Jury room (when a jury shall be provided) and Law library. In a newly-settled territory, conditions may permit, and even necessitate, this crowding, but not in a great commercial city like Shanghai. In addition to this, with salaries not sufficient to ensure the retention of men of ability and force of character, who are called upon to expatriate themselves in an unwholesome climate and

Quarters: The Judge and Assistant Judge should be allowed to get away from their court, and should receive rent allowances, the one \$2,500 the other \$2,000 gold. The District Attorney should receive rent allowance \$1,000 gold, about half what it will cost him. The Clerk, the Assistant Clerk, and the Marshal should be near their work for emergencies, and should be provided with quarters, from 3 to 5 rooms each.

U. S. Consulate General.—The offices, four in number, now available for consular work are not sufficient, and their arrangement is defective. A large proportion of the salary of each member of the staff must go in rent, the Consul General having to pay a fourth of his salary as rent for a house suitable for his position, the others from a third upwards; and now that all extraneous sources of income have been taken away, this heavy charge on private incomes constitutes a serious danger to the public service. The minimum provision which should be made is as follows:—

Offices: The British consulate, with more work, has 13 offices devoted to consular work, and is about to build on more; the French, with less work, has 10 offices. It seems probable that 10 offices is the minimum provision required for the American consular work.

Jail: Special attention is directed to the lack of facilities of the existing jail. As con-

stituted only two rooms with lath-and-plaster walls, the jail is easily broken, and it is not an uncommon occurrence for prisoners to escape.

Quarters: The Consul-General will find it convenient to have quarters provided for him, at least 10 rooms, in the federal building, since in times of emergency, which are frequent in Shanghai, he may have important business to attend to and telegrams to cipher and decipher at all hours of the day or night. It is also important that some member of his staff should always be on the premises to act as his secretary. For the others of his staff provision may be made either in the federal building or in houses at a little distance from it; but those who do not thus have quarters provided, should receive rent allowances, \$500 gold for student interpreters, \$1,000 gold for interpreters, \$1,500 gold for vice-consuls.

Inspector of Consulates and U. S. Health Officer.—Provision should be made for the official work of these officers in the federal buildings, and quarters or rent allowance given to them.

Commercial Agent.—Offices and quarters should be provided also for a representative of the Department of Commerce and Labor, who should be stationed at Shanghai.

Post Office.—That six foreign powers should have established post offices on Chinese soil in Shanghai (making, with the Chinese, seven fully equipped offices competing with each other) is an anomaly which cannot continue long, and the restriction of which will be a condition made for the entrance of China into the Postal Union. Shanghai will never be the terminus of an American line of subsidized mail steamers, and there is no more reason for the establishment of an American post office at Shanghai than at Yokohama. It is probable that no provision should be made for a post office in a new building, in which the demands on the ground-floor space will be difficult to meet; so long as it continues in existence the American post office might occupy rented quarters.

It was a full realization of the needs of the situation gained by repeated visits to Shanghai that led Secretary Taft on his recent visit here to give utterance to the following statement:

"What you need is a great Government building here, to be built by the expenditure of a large sum of money, so that our Court and Consulate shall be housed in a dignified manner." To the merchants and professional men in China the subject is one of intense importance. Not only their selfrespect but their material welfare and their safety are intimately connected with the proper assertion of the dignity of American citizenship.

It is submitted, therefore, that in view of the foregoing considerations the needs of the United States Government in China should be met by the erection at Shanghai of a Federal Building to provide for the various services of the Government and to that end the Association earnestly urges that Congress place at the disposition of the Secretary of State, to be applied in his discretion, the sum of one million dollars or so much thereof as may be necessary, to buy a site and erect suitable buildings for the Consular, Postal, Judicial, Commercial, Medical and other Government services at Shanghai, China.

CONCLUSION.—We have endeavored by the foregoing to point out the needs of the situation here and to show that the extension of an adequate body of laws to Americans in China and the construction of a Federal Building at Shanghai would promote American interests and American prestige in China.

The recommendations contained in this memorial are based upon the demands of the situation at the present time, but they acquire additional force in the light of the future development of China, which is in rapid progress already. That China will reform her administration and take her place among modern nations, that this will result in the material development of the Empire and the consequent increase of her foreign trade are facts which have been recognized by the treaty powers for a number of years and which have entered into the calculations of all of them in their operations in China, with the exception of the United States.

By reason of historical and geographical considerations America is entitled to a leading place in China's councils and in China's foreign trade. Acting upon the recommendations made in this memorial, Congress will go far towards securing for Americans in the future the advantages to which they are reasonably entitled.

H. B. MORSE, *President*,
JOHN F. SEAMAN, *Vice-President*
C. M. LACEY SITES, *Hon. Secretary*.

For the American Association of China.
Shanghai, November 12, 1907.

CONTRACTS AWARDED

The contract for the supplying of twelve electrically driven pumps and twelve motors and installing them in six pumping stations of the new Manila sewer system was awarded to Mr. Frank L. Strong of Manila. The bids were opened on January 15th and the contract awarded January 30th, after a close competition. The price is \$53,600.00. In awarding the bid Major Case, who has charge of the work, recommended to the municipal board that the bid of Mr. Strong—the only one under the highest bid that complied with the specification as to date of completion—be accepted.

The bids submitted follow:

The Atlantic, Gulf & Pacific Co., \$66,850.00, Westinghouse Motors and Bryan Jackson Pumps.

Frank L. Strong, \$53,600.00, General Electric Motors and Henry R. Worthington, New York, Pumps.

Findlay & Co., \$49,250.00, Westinghouse Motors and Worthington Pumping Eng. Co., London, Eng.

Germann & Co., \$46,995.00, General Electric Motors and Morris Pumps.

De Olier Engineering Co., \$35,780.00, their own goods.

Frank L. Strong, the successful bidder, is one of the oldest American engineering contractors in the Philippines and representative of the General Electric Co. of Schenectady, New York, and associated with him is Stuart S. Harvey, special eastern representative of Henry R. Worthington, New York, the famous pump manufacturer, and who has been active in the Philippines for the last eight years.

Some idea of the contract may be gathered by the following description of the motor and pumping equipment necessary for the extensive sewer system of Manila:

The main station will be supplied with two 24-inch, vertical shaft, Volute type Worthington pumps, capacity 25,000,000 gals., 24 hours, each. Motors, two, type I. Q., 20 pole, 155 h. p., 350 r. p. m., 220 V., 2 phase, 60 cycle, starting panels and electrical equipment to be furnished by the General Electric Co., alternating current, vertical type induction, arranged for direct connection to the 24-inch vertical centrifugal pumps to be furnished by Worthington.

Ermita Station—Two 12-inch vertical shaft, Volute type, Worthington pumps with a capacity of 5,000,000 gallons each. Motors: two type I. Q., 10 pole, 15 h. p., 720 r. p. m., 220 V., 2 phase, 60 cycle, alternating current, vertical type induction arranged for geared connection.

Santa Cruz Station—Pumps, Two 18-inch vertical shaft, Volute type Worthington, capacity 12,000,000 gallons each, 24 hours. Motors, Two, type I. Q., 10 pole, 17 h. p., 720 r. p. m., 220 V., 2 phase, 60 cycle, alternating current, vertical type induction arranged for geared connection.

Quiapo Station—Pumps, Two 12 inch vertical shaft, Volute type Worthington, capacity 5,000,000 gallons each, 24 hours. Motors, two, type I. Q., 8 pole, 10 h. p., 900 r. p. m., 220 V., 2 phase, 60 cycle, vertical type induction arranged for geared connection.

Malate Station—Pumps, Two 8-inch vertical shaft, Volute, Worthington, capacity 2,400,000 gallons each, 24 hours. Motors, Two type I. Q., 8 pole, 7.5 h. p., 900 r. p. m., 220 V., 2 phase, 60 cycle alternating current, vertical type induction arranged for geared connection.

Paco Station—Two 5-inch, vertical shaft, Volute type Worthington, capacity 600,000 gallons each, 24 hours. Motors, two, type I. Q., 8 pole, 5.5 h. p., 900 r. p. m., 220 V., 2 phase, 60 cycle, alternating current, vertical type induction, arranged for geared connection.

The pumps contracted for are the Worthington Standard design for sewage work and of the closed impeller type, arranged with special reference to this particular plant and having single bottom suction opening.

The contractor announces that all the motors, pumps, and material are guaranteed to be of the highest possible standards.

PHILIPPINE RAILWAY CONSTRUCTION

The grading of the entire line of the Philippine Railway Co. in Cebu, a distance of 60 miles connecting Danao with Argao, is completed and the steel laid for 42 miles. Of this distance, 40 miles are in operation between Danao and Carcar. The line in operation is partly ballasted and all the temporary timber bridges are complete. Permanent bridge construction is under way. All the stations North of Cebu are completed and work on the reinforced construction in the city of Cebu which includes the depot and shops is progressing satisfactorily.

In Panay the line from Iloilo to the vicinity of Lucena a distance of 17 miles, has been ballasted and steel laid and 26 miles have been graded. Good work is being done in the construction of the shops at Iloilo.

The Manila Railway Co. is rapidly pushing its work on the different lines. At the end of January north of Dagupan on the line to San Fernando de Union the road was open to San Fabian, and on the Camp One branch, 17 kilometers were graded and 10 kilometers of steel laid. On the San Fernando-Florida Blanca line 24.5 kilometers were graded and 20 kilometers of steel laid. On the Batangas line there are 59 kilometers graded, rails laid for 15 kilometers and ballasted for 12 kilometers. The Cavite Short Line is graded for 25 kilometers, steel laid for 15 kilometers and has 10 kilometers ballasted. The Hill section of the Manila Antipolo branch has been graded for 6 kilometers and the rails laid for 5 kilometers. The line is about 9 kilometers in length. On the main line of this system 65 pound steel has been substituted for 45 pound steel for a distance of 80 kilometers.

MESSRS. ARNHOLD KARBERG & CO.'S NEW BUILDING

This new building when completed will be one of the most modern in Shanghai. The site is at the corner of Szechuen and Kiukiang Roads and the construction is well under way. It is being built of reinforced concrete and no wood is used with the exception of door and window frames. The building is seven storeys in height and covers an area of 100×76 feet. All the floors excepting the first floor will be used for offices. The first floor will be utilized for show rooms. The stairway and heating flues are of concrete and the building is prepared for electric installation throughout including two electric elevators. The steel used is an American product with a tensile strength of 70,000 pounds. The cross-section is diamond shaped with two flanges or wings projecting at opposite corners. These portions are sheared up at intervals and bent to an angle of 45 degrees with the main section.

F. M. S. RAILWAY CONSTRUCTION

Vice-Consul General Chamberlain of Singapore includes a reference to the construction of the railroad from Kuala Semantan in Pahang to Gemas Negri Sembilan in a recent report. He says:

"The permanent survey has been made, the construction sanctioned, and work is to be started almost immediately. It is difficult to over-estimate the importance of having railway communication in a State like Pahang, which is still almost entirely undeveloped, where the distances are great, and where the mineral and agricultural possibilities are admittedly promising.

"This railway line, together with the 150 miles of trunk road now under construction between Benta and Kuantan, will be of incalculable value in opening up the State, as it will pass through and throw open a large area of hitherto practically unknown and inaccessible country, which will thus be rendered valuable for mining and planting enterprises. The total length of this line is about 70 miles, and up to 31st December, 1906, \$44,482 had been spent on its survey. Up to the end of 1906 over \$70,560 had been spent on railway surveys in Pahang. These included a trial survey from Kuala Semantan, the terminus of Gemas line to Kuantan. This line, if ever built, will be a little over 76 miles in length, and is estimated to cost \$4,635,368.

"Another trial survey was made from Kuala Semantan to Lipis, via Kuala Tembeling, a distance of 47 miles. This line, if built, will tap the Tembeling Valley midway between Lipis and Termerloh, and will open up a large area of agricultural land.

"A railway survey was also finished last year, at a cost of \$10,000, from Kuala Semantan to Lipis via Bentong, the total distance from a point at the 49th mile on the Pahang trunk road to Kuala Semantan being 58 miles. This line will not go nearer than 8 miles to Bentong, which will have to be reached by a branch line from Kuala Semantan."

BRICK INDUSTRY OF NORTH CHINA

In reviewing the industry in North China the *Peking and Tientsin Times* devotes some space to the new steam brick works at Yangtsun known as the Yangtsun Steam Brick Works. After reviewing the industry as it has developed in that section of China, the *Times* says:

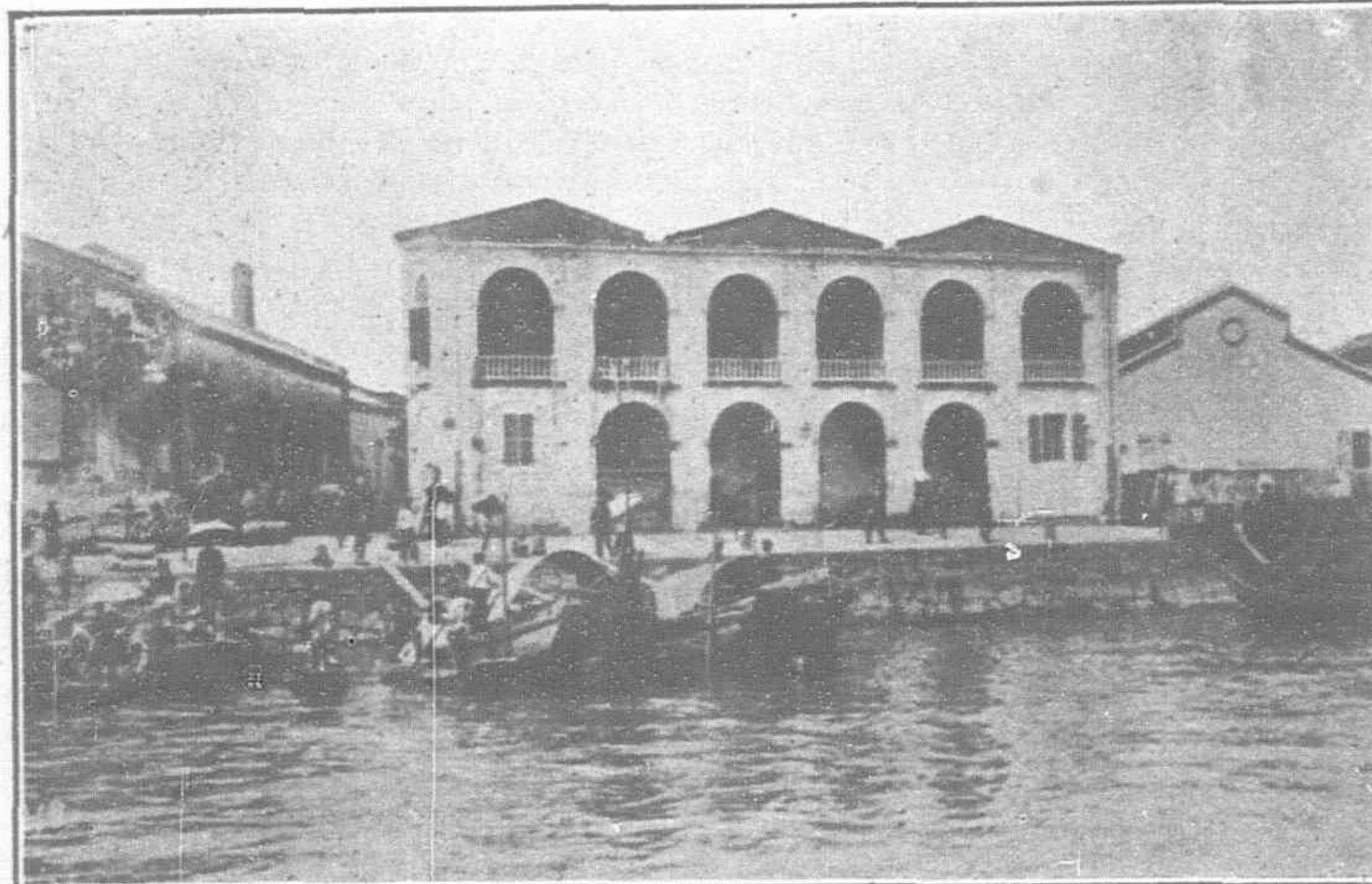
"The attention of passengers travelling to Peking has been attracted at Yangtsun station by a fine brick chimney looming high in the distance. This structure, with the numerous edifices surrounding it, belongs to the Yangtsun

red and black bricks, the works undertake roofing and ornamental tiles. There are also 6 large double mud kilns, with a total yearly output capacity of 8 million bricks, belonging to the concern. The different portions of the works, extending over a vast area, are connected by a system of trolley lines which lead also to the banks of the river. The works, especially during summer time when the manufacture is in full swing, will employ 1,000 native workmen.

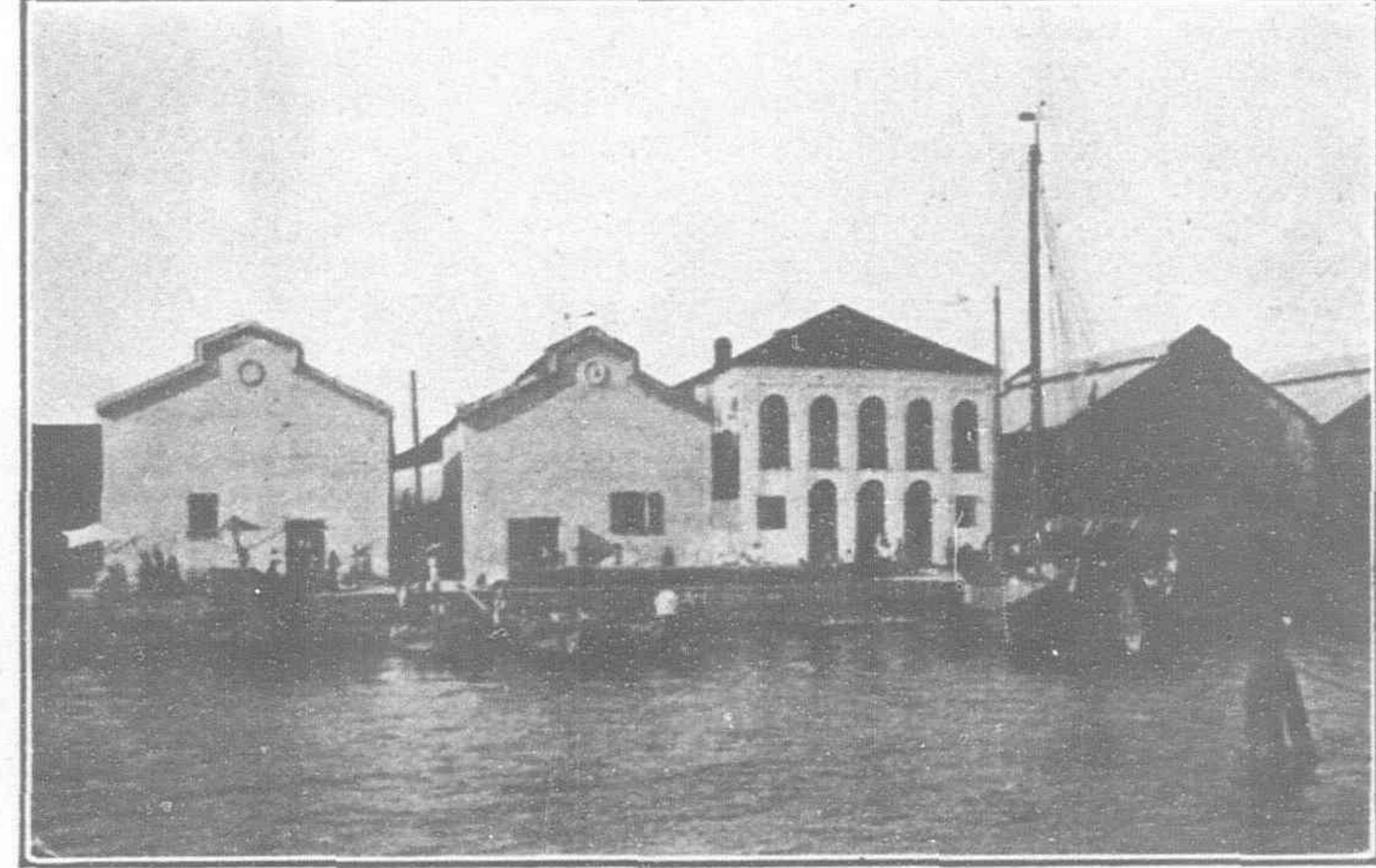
"The Hoffmann brick oven, and the other edifices, have all been designed and erected

received the better qualities of these products from central Russia.

"The poor quality of the Eastern Siberian product has nothing to do with the raw material, but is entirely due to inferior processes. The same raw material, which the country furnishes in abundance, if subjected to a more efficient process would give out a manufactured article equal to any. As it is, these local goods are distinguished by strength and durability, and it is exclusively upon their fabrication that the qualities of coarseness and fineness depend. All these Eastern Siberian



MESSRS. BUTTERFIELD & SWIRES' OFFICES AT SWATOW



MESSRS. JARDINE, MATHESON & CO.'S GODOWNS AT SWATOW

Steam Brick Works owned by Mr. W. Kleeschulte of this port. The works, which are planned on the most modern scientific system, are an interesting study and well worth inspecting. The structure that first excited the attention of the visitor is the Hoffmann Brick Oven, a huge pile of red bricks. The large chimney, 165 feet in height, shoots up from the centre of this oven. The latter is several feet in thickness and consists of two parallel ovens, 170 feet long, in the shape of concave vaults. Sixteen doors give access thereto to as many compartments of the oven. Each compartment is shut out from the next one by an iron partition which is dropped from overhead. Each compartment can hold 23,000 bricks, so that the total capacity of the oven is 40,000. At one extremity of the oven a furnace is started. The heat emanating therefrom ignites the coals which have been dropped, through the overhead ducts into the first compartment filled with bricks. The heat of the first compartment ignites the second one. The process goes on similarly for each adjacent compartment. Once ignition is started, the furnace from which the first fire was obtained, is destroyed. The process of this circuitous combustion goes on indefinitely, as long as the life-time of the oven if necessary. The coal-ducts are also utilized for the liberation of the surplus gases generated in the oven. These gases find their way ultimately to the main shaft. The very great heat which has to be maintained in the oven chambers (attaining a maximum of 1,000° centigrade) causes the subterranean water deposits to generate a certain amount of steam which is let loose in underground canals reaching to the surface. A tramway track for carting coals and unbaked bricks goes up an incline to the level roof of the oven which is also used for brick drying.

"The output capacity of the Hoffmann oven is about 10 million bricks per year. It is of paramount importance that the workmen do not neglect the coaling duties which consist in pouring in tiny lumps of coals, the size of walnuts, every five minutes. To this effect, automatic signals register any neglect of duty on the part of the workmen, in the foreman's and the manager's offices. In addition to the oven there is a pressing machine, steam driven mud mixer, drying sheds, carpenter's and blacksmith's shops, tile making machinery. Besides

by the manager of the works, Mr. Rudolf Scholz, architect."

MANUFACTURING INDUSTRIES IN EASTERN SIBERIA

With the rapid opening up of Eastern Siberia to settlement there, vast opportunities will develop for successful investment of capital in manufacturing ventures. A correspondent of the *Japan Advertiser* writes that at the present time there is an opening for modern tanneries, soap and glue factories on extensive lines. He claims that there is an abundance of war material but that the product turned out by the present small factories is very inferior, this being entirely due to the poor equipment and poorer processes. The writer says:

"One of the most interesting undertakings in Eastern Siberia at the present time would be a well-equipped tannery and soap factory, which could simultaneously, as an incidental, operate branches for the preparation of glue and the manufacture of brushes. The enterprise would possess as the bases of its prosperity the comparative richness of the region in the necessary raw materials, which would undoubtedly develop with an increasing demand.

"There are in every more or less central point of Eastern Siberian districts small, poorly-equipped tanneries, soap and glue factories, so called. These factories are built at a minimum outlay, and supply an extremely limited portion of the population, because their output is of the most inferior description and has necessarily little more than a local market. The necessity for this state of affairs becomes clear enough when we reflect that until quite recently the native Siberian has never enjoyed any extensive means of communication and that, being obliged to live an isolated existence, his interests, business, social and other, have been restricted to the narrow circle of his town or village and the immediate vicinity. These conditions have evolved a characteristic type of small trader or manufacturer who does not wish to increase his enterprises because he cannot possibly dispose of the output in the absence of transport facilities. Consequently the whole of Eastern Siberia has heretofore

factories, as intimated above, possess only the most primitive machines. More frequent washings are necessary, as also the adoption of proper chemical processes, with the best reagents, nowadays replaced by the most temporary makeshifts. In spite therefore of the country's natural richness in raw materials this branch of trade and manufacture is as yet merely in an embryonic stage.

In order to effect improvement the question calls for investigation from various points of view. The choice of a site for a thoroughly up to date and properly equipped factory must depend upon several important factors. It is essential that the situation should be as central as possible, and preferably at the junction of several lines of railway or other means of communication: also near a point through which the vast Mongolian and other herds of cattle are regularly driven. The choice should like wise be guided by the abundance of the local food supply, the nature of the ground, water, inhabitants, prospects of future development, growth of local markets, and especially technical conditions.

It may safely be said that no firm could undertake to furnish any Siberian market with these goods exported from Russia. The remoteness of export points and the isolated life generally have not so far warranted the regular shipment of superior articles, while the limited demand for inferior products is filled, as stated, by the small local establishments.

The principal kinds of these goods most in vogue are the following:

1.—Rude sorts of soap for laundry purposes for all residents, and for washing and bathing among the lower classes; which is also partial (particularly women and girls) to scented soaps. Both these kinds are very much used.

2.—Superior toilet soaps are used more by the richer classes, the kind in largest demand being glycerine soap.

3.—Leather for boots and especially for boot soles is the kind most used by the lower classes, because this part of the boot is frequently renewed, and nearly every peasant and Cossack acts as his own cobbler and personally chooses the leather he needs

at the local store. Always he wants the most durable. Meretricious attributes are not looked for. Also for military equipment this kind of leather is greatly needed.

4.—The best kinds of boots and shoes are at present supplied by firms at Warsaw, Moscow, and more rarely Hamburg.

5.—For troops, Cossacks, and peasants various kinds of harness are extensively used. Nearly every resident of Siberia has one or more horses.

Many other kinds are also used. If we have good ground for expecting that the development of Siberia will henceforth be rapid, we are also justified in stating that this process should not be hampered by the absence of necessary manufactures such as those indicated above. Undoubtedly these will develop and will include many auxiliary branch industries, in view of the unquestionable fact that Eastern Siberian life has now entered upon a stage of active growth.

FUEL OF THE FUTURE

Under the caption of "Oil and Empire," the *South China Morning Post* calls attention to the fact that the deposits of coal will some day be worked out within the limits of the British empire and unless some provision is made to find the necessary substitute, the commerce of the empire would suffer. It calls attention to the possibility in this generation of scraping the bottom of the Welsh coal bin and asks where under those circumstances would the nation be at. But the situation is not hopeless after all if capitalists would only take a leaf out of John D. Rockefeller's Standard Oil edition and develop the abundance of oil deposits scattered in every section of the empire interested. To support this the *Post* says:

"It seems almost incredible that with such a prospect staring us in the face we should have neglected to the extent we have the development of the substitute which lies ready for our use, not in one part of the Empire, but in many. The British Empire ought to be, and might be, the greatest producer of petroleum in the world, whereas it comes only fifth on the list, and its production of petroleum is almost ridiculous when compared with that of the United States. Yet we could very easily beat the seventeen million tons which America produces every year. In Borneo alone there is enough petroleum to satisfy the present demand of the whole world. In New Zealand, Australia, South Africa, and Canada there are petroleum areas so vast that no limit can be set to their possible production, and if we were to develop the deposits within our sphere of influence at the head of the Persian Gulf, we might wrest its commercial supremacy from Baku itself. In Burmah and Nigeria there are oil fields which, we are glad to say, are receiving serious attention from the Indian Government, and the Admiralty respectively. The Standard Oil Company has been prevented from controlling the one territory, and it is evidently intended to draw largely upon the other for liquid fuel for use at sea. An Englishman discovered that petroleum could be made useful, and an Englishman invented the best petroleum engine. It remains for other Englishmen to develop and utilize the enormous source of power which their discoveries have made available."

THE FLOUR MILLING IN JAPAN

According to the latest investigations of the Department of Agriculture and Commerce the flour mills existing in Japan at the end of last year totalled 16,968, the workmen employed numbering 18,642, as against 16,988 factories and 18,993 workmen recorded for the end of the previous year. The decrease is probably due to amalgamation among the smaller factories. The total production in 1906 aggregated 188,679,835 kin of -Y-11,565,938 in value, as against 187,718,626 kin of -Y-11,306,955 in value for the previous year.

The Nippon Seifun Kaisha in Tokyo (capital -Y-300,000) employs steam boilers having 250 horse-power. The Sapporo Seifun Kaisha, the Masuda Flour Mill (in Kobe) and the Nagasaki Mugiko Kabushiki Kaisha rank next in importance, each having a capital ranging

between -Y-100,000 and -Y-150,000, the work being carried on by using steam engines having 75 to 100 horse power. The Imperial Milling Co., Tokyo, is the newest of the kind.

The largest flour mill where water power is utilized as the prime mover is the Utsunomiya Seifun Kaisha. The factory is provided with eight turbine water wheels, indicating 50 horse power, and it ranks as one of the largest factories in Japan, its capital being -Y-600,000. There also exist factories where water wheels, kerosene and steam motors are used, but the majority of them are carrying on business on a small scale, the business in many cases being undertaken as subsidiary to the rice-cleaning business.—*Yokohama Chamber of Commerce Journal*.

FORMOSAN PROGRESS

Mr. T. Iwai, civil governor of Formosa and successor to Baron Goto, has given the following information regarding Formosa:

"Before Formosa was in the possession of the Chinese the resources were not opened up to the full extent of their value. As soon as it was ceded to our possession after the Japan China war, Formosa became a precious jewel, I mean, in Japanese eyes, an island of unopened treasures, gold, timber, tea and so forth. The question remained how to open this treasure-house now in Japanese hands. What were the keys? We had them before our eyes in the persons of the late Governor-General Viscount Kodama, and the ex-civil governor Baron Goto. These two predecessors of mine have already paved the way for my work, and the keys had been prepared. They have found for me able officials at their posts and capitalists that are ready to co-operate for the development of the island. Now, Formosa may claim to be a self-supporting colony. Just compare its development before and after the island was in our possession. Under the Chinese control about twelve years ago, the annual revenue of the island was four to five million yen whereas in our hands, since two years ago, the revenue has reached the sum of 80 million yen, namely over seven or eight times the revenue under Chinese control. Regarding the trade during the Chinese regime the total figure was only twenty million yen. Now, it is already over 49 million yen. Of course, we have spent about 140,000,000 yen for advancement of the island along various lines since it came into possession of the country, but from two years ago the island has been able to support itself without any help from the home government. So much so, indeed, that foreign countries recognize our capacity and colonizing power. Nevertheless, from our point of view, our mission toward Formosa is not yet fulfilled to the full length of our desires. We must make more preparations for the improvement of sanitary arrangements, docks and harbors and the opening of roads and pathways. In a word, to develop Formosa to the full extent of its real value we must import more capital and skill. Left as part of Baron Goto's contemplated plan, there is an irrigation scheme for which capital up to 160,000,000 is needed for the work during ten years. If this plan is completed, the revenue of Formosa will become enormous. The yearly rice crop, under the present system is stated to be four million koku. It will be doubled under the new management; estimating one koku at ten yen we shall see a vast amount of income, some 80 million yen, from rice alone. And for sugar the present annual production of the million piculs will be trebled; one picul costs some seven yen, so that it will count up to about 20 million yen. Thus with rice and sugar alone, Formosa would get an income of 100,000,000 yen. Besides, there is the camphor industry of about five million and tea to the amount of six million yen. Moreover, when once the work of scientific irrigation is taken up seriously, we can simultaneously apply the very water in the production of power for industrial purposes. As Formosa is short of coal, we can use this water for several industries such as sugar refining, hemp manufacturing, gum and paper mills. By that time, Formosa will not only remain a prosperous agricultural country, but will have become

a very promising industrial island. At any rate, in next parliament, we are contemplating bringing in a bill for an appropriation for at least a portion of the irrigation projects, and, for my part, I have no other suggestion but to follow the masterly plans laid out by our able ex-governor, Baron Goto."

SAGHALIEN COAL DEPOSITS

The Karafuto Administration Office has issued a mineral report on the island of Saghalien and devotes the greater part of it to the description of the large coal seams there that give promise of large returns on capital invested in their development. The following are interesting excerpts:

"Notoro coal field, Notoro cape. Length 20 ri, breadth 4 ri and depth of bed from 4 to 20 feet.

"Ibuna field lying at about 10 ri upwards from the mouth of the Ibuna river. Though exact area is not ascertained the top of bed is perceptible for about 10 ri along the river course. In some places depth of bed is over 50 feet.

"Serutonai field, about 3 miles from the mouth of the Nayashi river on the northwestern coast of the island and extending to the northern bank of the Serutonai river. Depth of bed 4 feet.

"Horonai field. The vein runs for over 20 ri from the vicinity of the Nansei river to the boundary line, depth of bed being 12 feet.

RUBBER MACHINERY INSTALLED

There has just been completed at Bukit Nanas Rubber Estate, Seremban—lately acquired by the Linggi Plantations Ltd.—an installation of machinery for creping and sheeting rubber. It consists of 45.50 H. P. "National" gas engine and suction gas plant, and a series of Messrs. Francis Shaw's rubber machines of powerful construction, having rollers 20 in. wide by 12 in. diameter. The machines are driven from an underneath main shaft, thereby doing away with belting or intermediate gearing. Scott's patent vacuum drying stove, capable of drying 560 to 600 pounds of rubber at one charge, has also been installed at the Bukit Nanas Estate.—*Times of Malaya*.

MINING IN NETHERLANDS INDIA

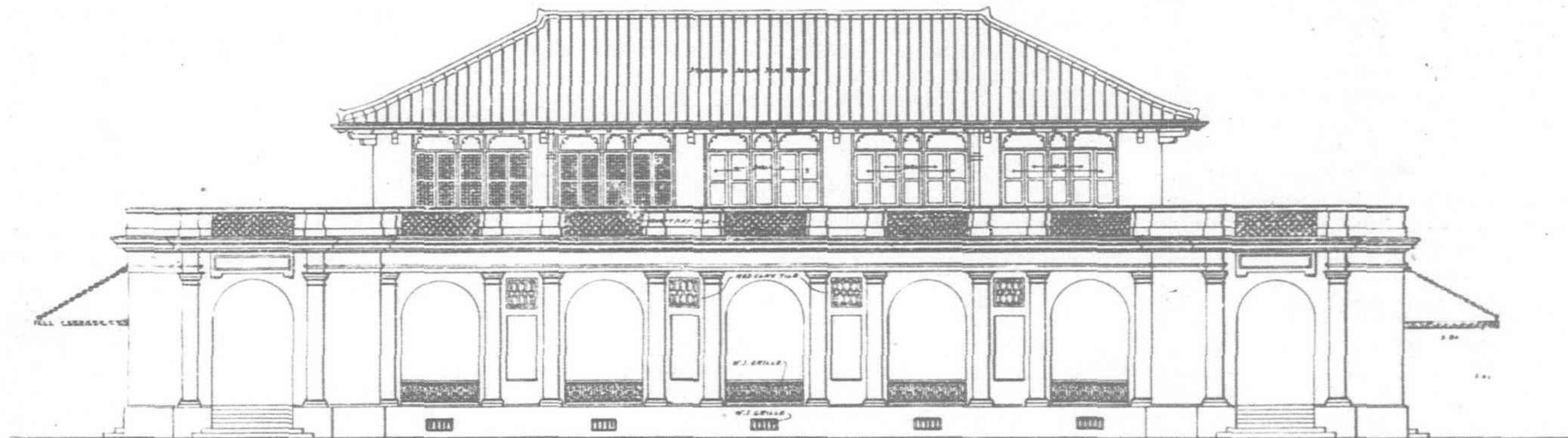
Some interest has been taken recently in the development of the mineral deposits of Netherlands India and it is not improbable that the government will offer inducements to prospectors and others in the different mineral belts. The mining department of the colony has not met with the greatest degree of success although it has been active for at least thirty-five years. It is possible that the government will undertake to develop any properties of value if no other means of interesting capital succeed. The Redjang district in mid-Sumatra is reported to be rich in gold deposits.

DEFERRED SHARES

A very good illustration of the working of the Deferred or Founders' shares system is furnished by the case of the Ceylon Company of Pearl Fisheries. This company was registered in March of last year, the capital being £165,000 in 150,000 Ordinary shares of £1, half of which has been paid up, and 300,000 Deferred shares of £1. fully paid. Within a few months of the registration of the company a dividend of 9d. per share was paid on the Founders' shares, and now another of like amount has been declared, so that the holders of these shares, who subscribed £15,000, have received, within about a year-and-a-half of the company's formation, 150 per cent in dividends, or a total payment of £22,500. The reasons why certain promoters adopt the Deferred share system are not obscure, but it is rather remarkable in view of past experience that investors do not set their faces more resolutely against it.—*The Tribune*.

NEW MANILA CLUB

The new Manila Club building now in course of erection on the old tennis grounds between Calles Nozaleda and San Marcelino in Manila will be one of the most modern buildings of its kind in the Orient and a credit to the British colony. The grounds which include the site cover an area of ten acres of the most desirable property in the Philippine capital.



NEW MANILA CLUB, FRONT ELEVATION

The club house is 140 feet by 110 feet over all with spread foundation and reinforced concrete construction throughout. The cost of the building alone when completed is estimated at about 75,000 pesos Philippine Currency.

The building will be of two storeys, the second extending over about one-third of the area of the foundation. The floors and finishings will be of native hardwood.

The first floor is to be divided into a general dining room, 30 by 40 feet, with several private dining rooms and one for the ladies. There will also be a buffet, a card room and a commodious office on this floor. On the same floor will be a wide verandah overlooking the tennis grounds and facing south, in which direction the building fronts. On the second floor are a large reading room and a number of private rooms with bath, toilet, etc.

In the rear of the building the plans call for a terrace, covered and enclosing a court with a corridor to room with lockers for the athletes which will give privacy to those quarters and a separate entrance. Space is provided for a large swimming pool to be 30 by 50 feet wide which will be added after the building is constructed. A large kitchen is included in the plans and every provision has been arranged for the comfort and convenience of the club members.

Mr. W. E. Parsons, consulting architect to the Philippine Commission, drafted the plans and Mr. O. F. Campbell of Manila is the contractor. Mr. S. J. Rand has the contract for the plumbing which will be of the most modern and extensive kind. It is expected that the contract will be completed in May of this year.

TYPHOON REFUGE AT HONGKONG

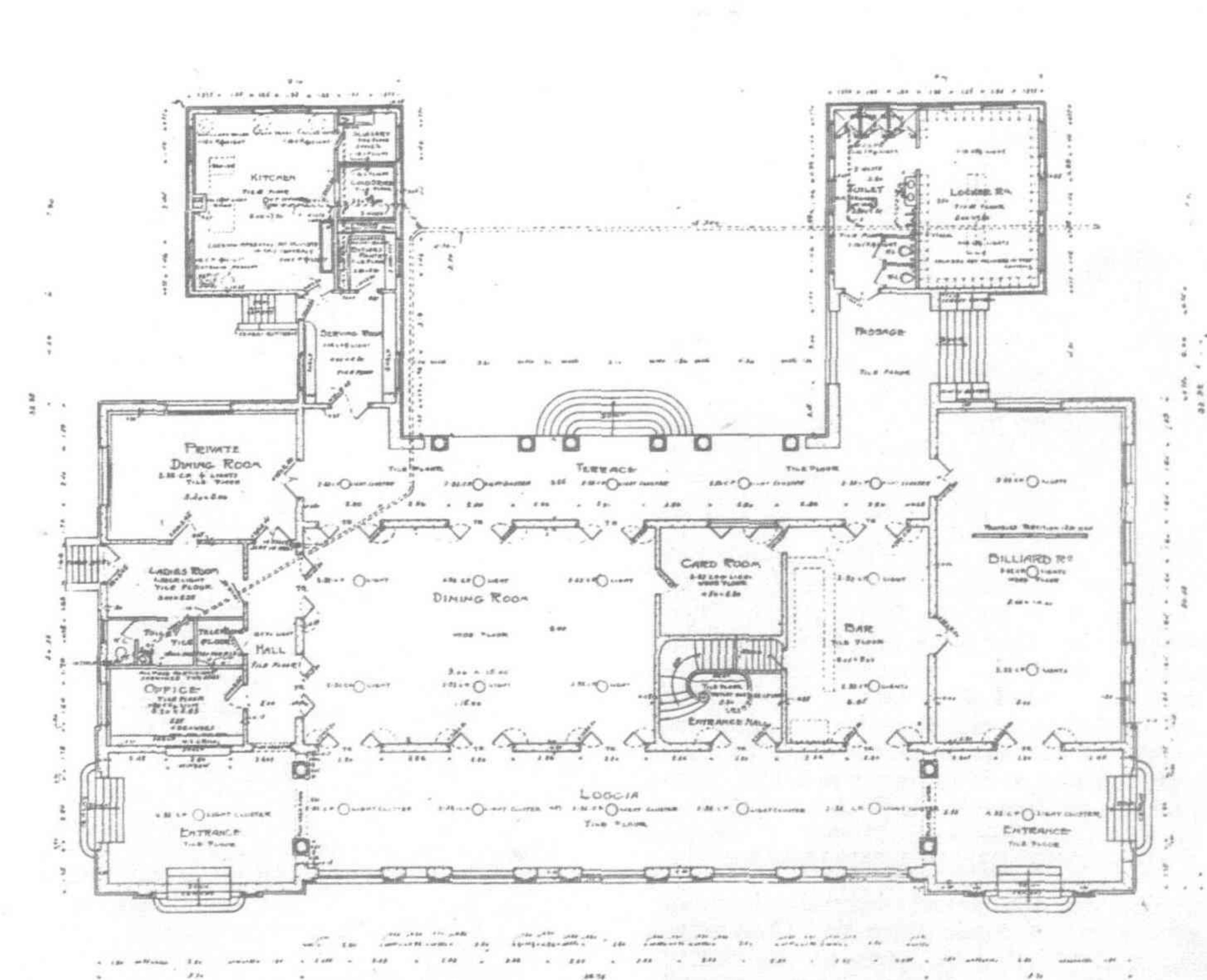
The public works committee submitted its report to the legislative council on the proposed protection to shipping in Hongkong harbor by improving the new harbor of refuge and providing for a new one. The *South China Morning Post* gives some extracts from the report of the meeting in which the council decided upon the Mongkoktsui scheme as the most favorable. Extracts from former minutes which were considered follow.

Mr. Keswick: Existing Harbor: Causeway Bay should be immediately deepened. A depth of 9 feet all over, as proposed in the Public Works Department estimate, would be superfluous and it would suffice if the entire area were divided into three equal parts having depths of 9, 6 and 3 feet respectively. New Harbor: A harbor at Cheung Sha Wan would be preferable to one opposite Mongkoktsui on the grounds of economy. The Kennedy Town proposal would be a luxury and the minor

Mongkoktsui Scheme an absolute waste of money.

Mr. Osborne: Existing Harbor: Causeway Bay should be deepened so as to afford 10 feet depth along the North side, diminishing to 2 feet along the South side, but, as the area of the bay is insufficient, additional accommodation must be provided. New Harbor: A sheltered area of 100 acres is required. The Ken-

A report by Mr. Boulton, dated 3rd January, 1908, reviewing the points raised in the foregoing minutes, was then read. It contained the following statements: Causeway Bay: A comparison of old and new charts showed that no appreciable advance of the foreshore had occurred since the establishment of the Colony. Of the 3 nullahs discharging into the bay, only one drains bare hills which are likely to



NEW MANILA CLUB BUILDING—FIRST FLOOR PLAN

Keswick. New Harbor: This should be either at Mongkoktsui or Cheung Sha Wan,—preferably the latter.

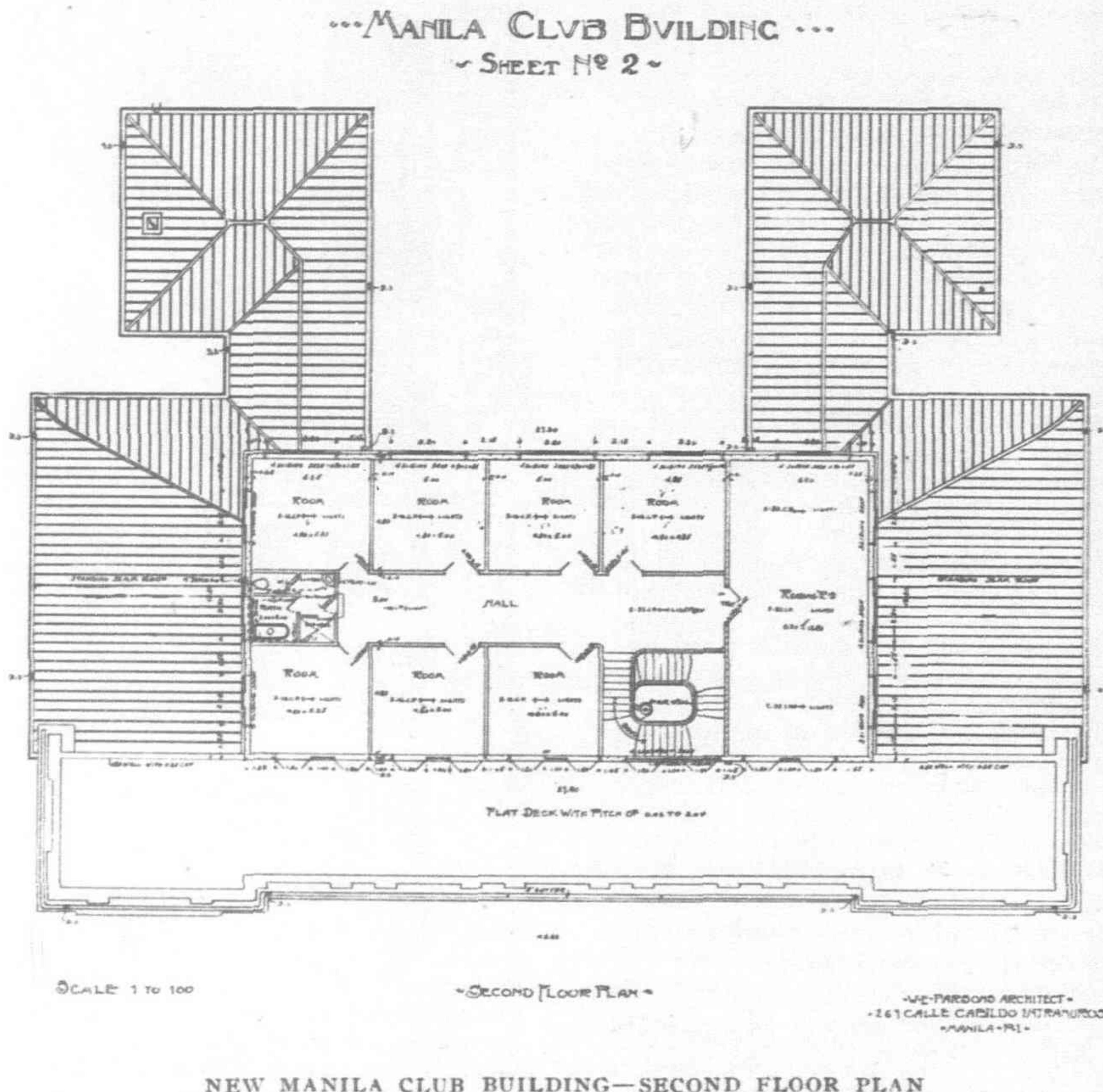
Mr. Thomson: Existing Harbor: The dredging of Causeway Bay should, if carried out, be an additional work. New Harbor: Kennedy Town scheme is out of the question. No estimate has been given of the Cheung Sha Wan scheme.

the cost would probably amount to about \$500,000. The removal of all material above the level of low water of Ordinary Spring Tides could be done by manual labor and was estimated to cost about \$70,000. New Harbor: The cost of a breakwater at Cheung Sha Wan, enclosing an area of 166 acres, was estimated roughly at \$1,420,000 and, if the shallow areas opposite the ends of the breakwater had not

been reclaimed by the time it was carried out, temporary groins would be required to restrict the width of the entrances. The scheme was as shown on a tracing dated 25-7-04 in C. S. O. 9647-1903. A modified scheme to enclose an area of 100 acres at Cheung Sha Wan could be carried out at a cost estimated approximately at \$1,200,000. The objection to both these proposals was that they would prevent the carry-

the *Jiji* in its optimistic comment on the progress made and the prospects for the future.

The *Jiji* is gratified with the rapid progress made in navigation and ship-building in Japan since the Chino-Japanese War. The European line of the N. Y. K. was opened only a little over 10 years ago, since when the company has struggled for its place amidst powerful rivalry of the European lines, until the "Maru



NEW MANILA CLUB BUILDING—SECOND FLOOR PLAN

ing out of an extensive reclamation scheme for which the bay was well adapted. The proposed breakwater at Mongkoktsui was strengthened by the introduction of concrete blocks to a small extent, but otherwise it was of such a type as would be required at Cheung Sha Wan or elsewhere. Mongkoktsui was nearer the centre of the harbor than Cheung Sha Wan—a very important consideration in the case of a sudden storm.

The Chairman read the report of a Public Works Committee meeting held on the 25th October, 1906, at which the various sites for a harbor of refuge were considered, the result being that the Mongkoktsui site was unanimously recommended to Government.

After full discussion, the Members present agreed to the following recommendations:—
(a.) In view of the proposed reclamation scheme at Cheung Sha Wan, the Mongkoktsui scheme should be adopted and a condition should be made that the existing trading anchorage off Yaumati is not to be interfered with after the completion of the scheme. (b.) In view of the great expense involved in carrying out any extensive scheme of dredging at Causeway Bay, which is really unnecessary for the requirements of the craft seeking refuge there, steps should be taken to provide a shallow depth of water over the area which at present dries at Low Water. This work should be regarded as an urgent one.

The Committee understand that the work recommended in (b.) can be done by hand at a moderate cost.

JAPANESE NAVIGATION AND SHIPBUILDING

In reviewing the progress made in marine activity for 1907, the *Japanese Times* quotes

fleet" of Japan began to attract favorable attention of foreign voyagers and shippers. The high degree of efficiency was attested in the late war, when all the ships above 6,000 tons were enlisted in the Government service and successfully discharged their work as transports for the army. On the return of peace, the N. Y. K. showed greater ambition in the increase of tonnage as well as speed not only of its European liners, but in endeavours to meet the general demand for an improved service. The launching of the *Kamo Maru* on the 24th inst. as the first of the six sister ships of about 9,000 tons marks not only the ambition of the company but the development of shipbuilding work of the Mitsubishi Dockyard at Nagasaki. It is not only these but the increasing production of large ships at home makes the paper go into an outline description of the condition of that dockyard. Beginning with the launching of the ill-fated *Hitachi Maru* of the Tsushima Straits tragedy in April 1898, the dockyard has turned out 10 ships of 5-6,000 tons to the order of the N. Y. K. The constant extension of its works has enabled it to turn out two mail ships of 14,000 tons for the T. K. K., and at this instance the *Kamo Maru*, which will be followed by five ships of the same type. The ships now in course of construction number 12, with a tonnage of 85,000. The dockyard employs 8,500 men and its full annual capacity of production is given at 30,000 tons. In other respects of organization, it shows no inferiority to the foremost dockyards of the world. Moreover, it has secured the sole agency of turbine and manganese bronze. In the ship now launched the material, with exception of patented articles, has been turned out by the works, a feature that marks another great step in the growth of the shipbuilding work in the country.

RAILWAYS AND RAILWAY CONSTRUCTION IN CHINA

Consul Thornwell of Nankin in his report gives the following résumé of railways in operation, being constructed and projected within the empire:

Provinces.	Complet-ed.	Under const'n.
Manchuria	1,623	223
Chihli-Manchuria	600	—
Chihli	13	—
Chihli-Mongolia	33	92
Chihli-Honan-Hupeh	754	—
Honan	93	—
Chihli-Shansi	87	68
Honan	41	75
Shantung	274	—
Kiangsu	90	113
Chekiang	—	3
Kiangsi-Hunan	64	—
Kwangtung	55	55
Kwangtung-Hunan-Hupeh	720	—
Yunnan	19	273
Total	3,746	1,622

Railway projected: Hankow to Chengtu (the capitals of Hupeh and Szechuan via Chungking); Soochow to Hangchow, Ningpo; Changsha to Shenchowfu; Shanghai to Kashin; Amoy to Yenping, Chuanchowfu, Foochow; Sianfu to Tungkwan (Shensi); Taiyuanfu to Pingyangfu (Shansi); Tsehchow to Taokow; Tatungfu to Kalgan; Tientsin to Chinkiang, Tehchow (Shantung); Canton to Kowloon (Hongkong); Wuhu to Kwangtchow (Anhwei) Canton to Amoy (Fukien); Canton to Kanchow (Kiangsi); Shenchowfu to Changteh (North Hunan); Hengchowfu to Yungchowfu (Hunan); Tungkwan to Puchowfu (Shensi, Shansi); Kiukiang to Nanchang (Kiangsi); Sunning to Yeungkong (Kwangtung); Kalgan to Kulun (Mongolia); and from Langchowfu to Illi (Sinkiang).

HONGKONG ARCHITECTS

The *Official Gazette* has published a list of the authorized architects of Hongkong as follows:

Abdoolhoosen Abdoolrahim, Anthony Roy Austin, Herbert William Bird, Lennox Godfrey Bird, Guy Blood, James Fettes Boulton, Alfred Bryer, William Chatham, C.M.G., William Danby, Albert Denison, Henry George Currall Fisher, Charles Henry Gale, Lawrence Gibbs, Albert Edwin Griffin, Bernard Brotherton Harker, Ernest Manning Hazeland, Alfred Herbert Hewitt, Arnold Hackney Hollingsworth, Augustus Shelton Hooper, Patrick Nicholas Hill Jones, John Lemm, James Callaway Lowe, John McGubbin, James Orange, Arthur Henry Ough, Thomas Luff Perkins, Edward Albert Ram, Arthur Robert Fenton Raven, Louis Augustus Rose, Arthur Poonoo Samy, George John Budds Sayer, Christopher Boswood Thomas, Hugh Pollock Tooker, Arthur Turner, Charles Warren, William Lionel Wreford Weaser, Wong A Cheong, and Wong Kat Son.

GOLD IN SIAM

The *Siam Free Press* in reviewing the gold mining industry of Siam says:

"Gold is very widely distributed in Siam; and is washed out of the alluvium by the Natives in several districts. The chief of these are Pu Kiri, Bangtaphan, Kow Suplu and Tomoh. In the latter district Chinese workers carry on lode mining as well as alluvial. The native gold-mining industry is, however, a very unimportant one; the total number of persons regularly employed probably not exceeding one thousand."

"Gold mining according to modern methods has been far from successful in Siam. Many concessions have been granted by the Government, and much capital has been expended; but in no single instance have mining operations met with any success. This may be accounted for, partly by the difficult nature of the country for carrying on mining by Europeans, and partly by bad management; but it remains to be seen whether the future will bring forth better results."

NEW YOUNG MEN'S CHRISTIAN ASSOCIATION

This building is now in the course of construction on the site secured by the Board of Directors at the Corner of Calles Concepcion and Carlos IV, in the rear of the City Hall, Manila. It is divided into three sections, the athletic

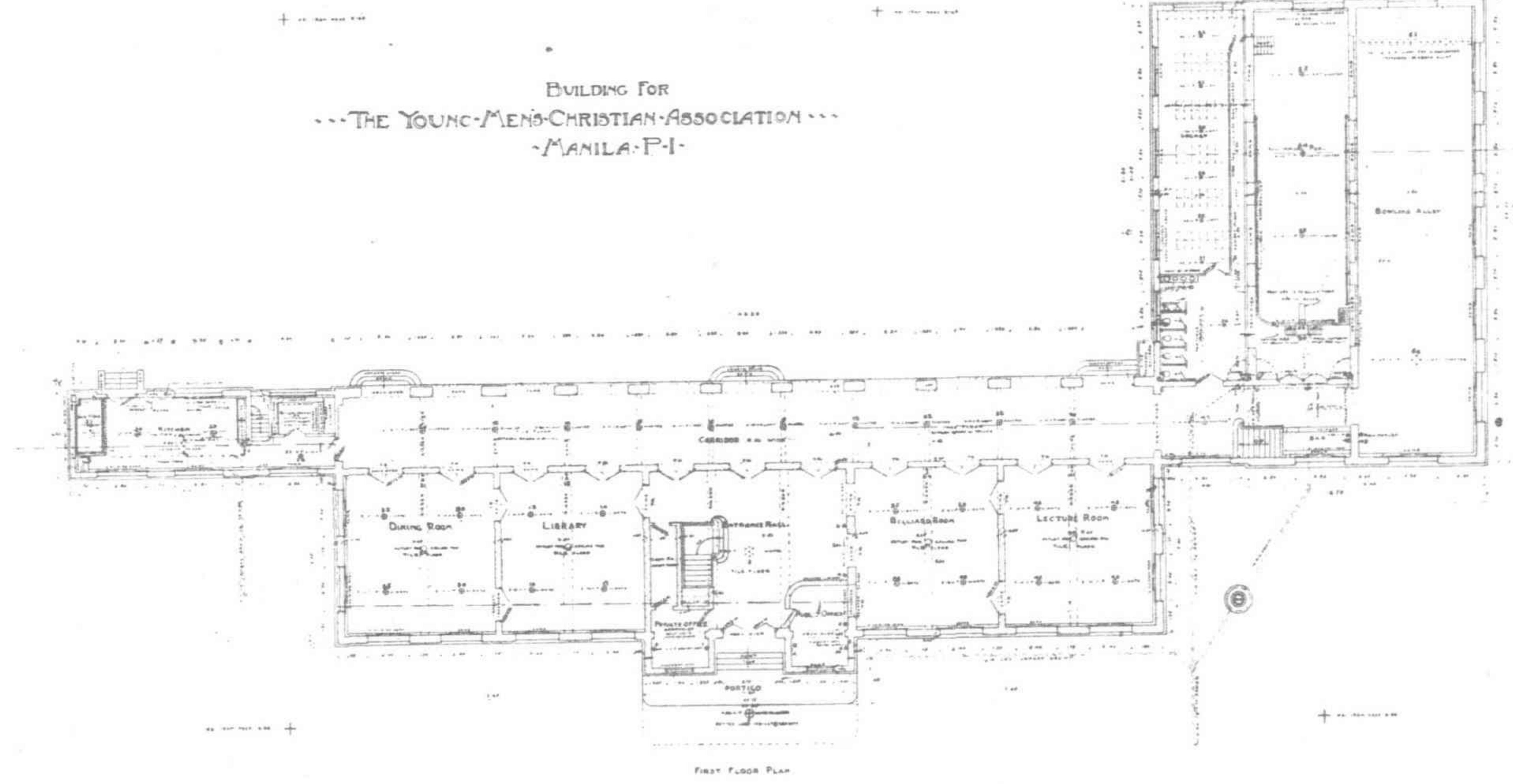
balconies will add to the comfort of the different bedrooms on the second floor.

The athletic building is to be a two-story structure 68 feet by 85 feet. On the first floor space has been divided into a large locker room and a swimming pool in the center 60 feet by 19 feet and four bowling alleys.

On the second floor the floor space of 50 feet by 70 feet is to be used for a gymnasium and

SHANGHAI TRAMWAYS

The new system of electric trams for Shanghai is practically complete and will be in operation before the end of February. All the rolling stock and other necessary equipment is on the ground and the different sections are connected with few exceptions. The company has been training its native help for some time so that



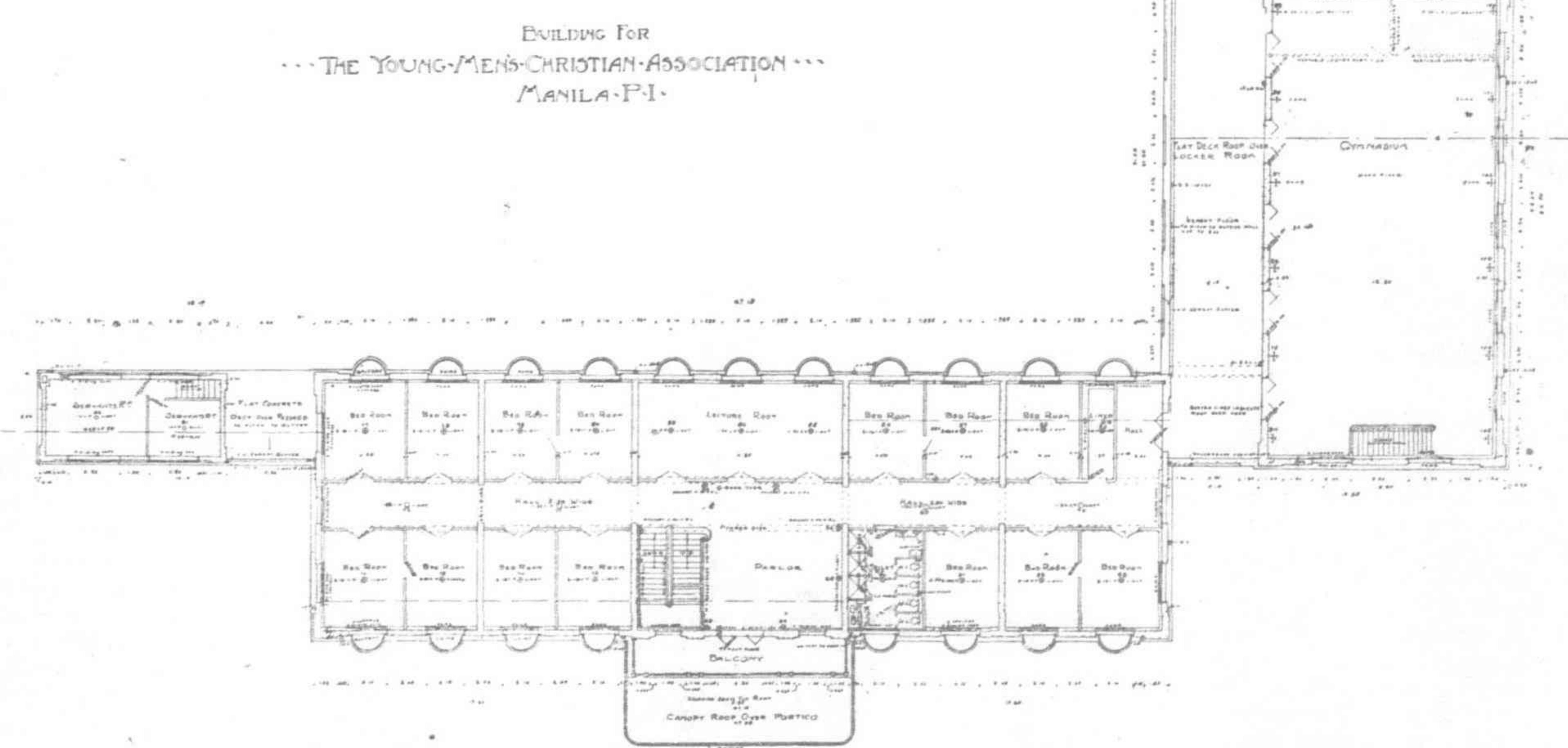
FIRST FLOOR PLAN, Y. M. C. A. BUILDING, MANILA.

building on the right, the main building and the kitchen on the left. The main building will be 150 feet by 45 feet and will have a wide verandah running the full length overlooking the tennis courts to be located at the rear of the building. To the left of the entrance to the main building will be two large rooms, one for a billiard room and the other, next the

in the rear are committee rooms and an office for the director. The roof garden over this building will be 18 feet by 85 feet. It is expected that the construction will be concluded by November of this year.

The specifications call for concrete construction with trussed steel and tile roof. The

when the entire system is thrown open, the danger of operation through inexperienced motormen will be minimized. In all there are about 24 miles of track and the track is narrow gauge on account of the narrowness of most of the streets. Messrs. Bruce Peebles & Co. were the concessionaires and the concession was taken over and financed by the Shanghai



SECOND FLOOR PLAN, Y. M. C. A. BUILDING, MANILA.

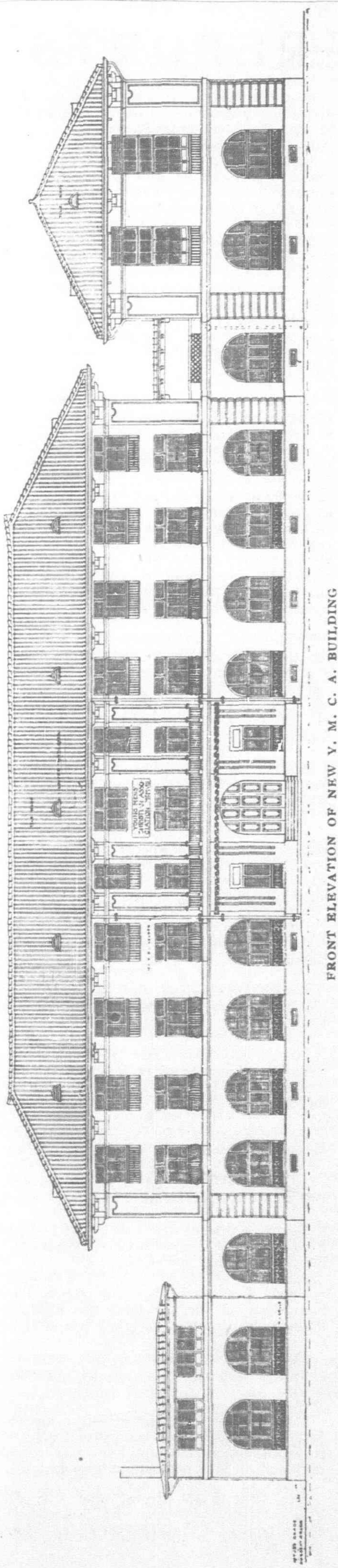
kitchen, for a restaurant. On the right are two large rooms and on the extreme right is the entrance to the athletic building. The second and third floors of the main building are to be set aside for rooming apartments, together with a parlor and lecture room on the second floor. There will probably be rooms to accommodate at least 65 men. Shower bath and toilets will be located on each floor, and small

building alone will cost, when complete, ₱170,000. This sum was a gift from the International Committee of the Y. M. C. A., conditional upon the Manila citizens subscribing sufficient money for the purchase of the site and furnishing the building. This condition has been met.

Consulting Architect W. E. Parsons drew up the plans and Mr. Robert M. Loper of Manila secured the contract.

Electric Construction Co., the original concessionaires taking charge of the construction work under the management of Mr. W. R. Wright who represented the consulting engineers of the company.

There are few, if any, grades in the Settlements which will greatly reduce the power cost. The company intends to divide the system into many sections; the fare over each



of these sections will be five cents silver making it cost 25 cents over the entire route from the Bund to Yangtze-poo, the longest route. The sections follow:

"Bund (Astor House, or the Club) to Defence Creek; Defence Creek to Carter Road; Carter Road to Bubbling Well; Carter Road to Chefoo Road; Chefoo Road to Railway Station; Bund (Shanghai Club) to Astor House; Astor House to Muirhead Road; Muirhead Road to Lay Road; Lay Road to Yangtze-poo Terminus; Astor House to Range Road; Range Road to Rifle Range."

The *North China Daily News* describes the system and depot at length and says:

"A large car depot has been erected at the junction of the Hart and Great Western Roads. The sheds are built of galvanized iron, and the trams enter the various doors over a network of rails and under a network of wires. Corrugated steel doors, mounted on rollers, close each entrance when necessary.

"Sixty-four trams have been erected. Between each pair of rails in the shed there are pits to enable the staff to inspect the mechanism of the cars from below. The terms of the concession do not allow of any exterior disfigurement with advertisements. The cars are mounted on four wheels, each pair of which is geared to a motor. There are driving platforms at both ends, equipped with Messrs. Bruce, Peebles' K₁ type controllers, handbrakes, automatic switches, a foot-gong, sand-cock and life-guard release. The life-guards, which are of the Hudson, Bowring type, are immediately under the driving platforms. A wooden gate, known as a feeler, hangs to within a few inches of the rails, and should it meet with any obstruction across the rails, swings back and releases a scoop, which drops across the metals and picks up the obstruction, whether it be a body or a big stone. There are sand boxes under the seats, which are also operated by the driver, and enable the wheels to grip when the line is slippery. Each car is divided into two compartments to seat twelve first and twenty second-class passengers respectively. The seats in the first-class compartment are covered with rattan; those in the second-class are of wood. A sliding door separates the two classes. A flexible cord, connected with a bell on the driving platform, runs through the interior and enables the conductor to signal to the driver. On both the driving platforms there are 'lazy tong' steel gates, which can be closed to prevent passengers entering or leaving on the wrong side. The cars are lighted by electricity, and are provided with side windows and sun-shutters, small upper windows and roof ventilators, all of which can be thrown open to allow a through current of air during the hot weather. The destination of each car is shown by a transparent roller-blind in front, bearing English and Chinese characters, which is set on each journey.

"The route each car will take will further be indicated at night by colored slides over one of the headlights. The motors are arranged in series and in parallel, so that should one of them break down the car could still make its way back to the depot. Moreover a portable telephone is carried, by means of which communication can be established with headquarters through one of the numerous junction boxes. The trams also carry an emergency repair outfit, including rubber gloves and a few simple tools. Should the handbrakes fail, the trams can be brought up in half their own length by the electric brakes. For starting the cars there are three resistance grids beneath. Each tram, complete, weighs about ten tons.

"The car shed also contains a repair shop, fitted with a hydraulic ram, with a pressure of eight tons to the square inch—for removing and replacing tyres—a motor, lathes and other machinery. Mention should also be made of an electric air-compressor for blowing out the motor cases of the cars.

"The remainder of the accommodation in the sheds is devoted to store-rooms, a strong room, waiting rooms for the staff, and offices for the traffic-superintendent and his assistants. Residences for the foreign staff are building in the vicinity."

ELECTRIC POWER FROM WIND

According to Consul-General Richard Guenther, of Frankfort, German papers state that in Germany wind motors as power generators for use in agricultural and industrial pursuits are rarely met with, but that in Denmark their use has increased very greatly. The consul-general continues:

Since 1897 the Danish Government has contributed about \$28,000 for equipments and has even lately erected an experimental station at Askoc. A technical writer describes these experiments, which were made on the initiative of the Danish Government, and also some of the electric works in Denmark which generate electricity by means of wind motors. According to his statements, motors with 4 wings have given the best results, as a smaller number of wings does not fully utilize the wind power, while a larger number acts detrimentally upon the wind current between the wings.

If a medium large wind motor is used with a wing surface of about 48 square meters (1 square meter = 10.764 square feet), 8-horse-power is obtained at a wind velocity of 6 meters per second (1 meter = 3.28 feet). At a velocity of 8 meters the horse power is more than doubled. A wind with a velocity of 8 meters per second is no rarity. The weather reports classify it as No. 3, while the highest wind velocity is No. 12. Since 1903 there has been in existence the Danish Electricity Company, from whose zealous agitation 30 larger and smaller wind-power electrical equipments are in operation throughout Denmark.

HOTELS IN CHINA

The following report on the need of modern inns in China and the Far East is transmitted by Wilbur T. Gracey, American consul at Tsingtau:

There is an excellent opportunity in China for establishing good modern hotels, and positions are frequently open to first-class hotel managers. In Tsingtau there are two hotels of the first grade, run under the same management, and owned by a limited liability company. During the past summer several hundred guests have come to Tsingtau for the season, and this port is becoming the great summer resort of China. Most of the people have been obliged to live in the hotels, there being practically no boarding houses, and one hotel, located on the bathing beach, has secured most of the trade. This hotel is provided with 40 rooms only, and has been continually filled during the summer months. Many persons have come here from the other ports of China, expecting to secure accommodations, and have been obliged to put up at the town branch of this hotel, 3 miles distant. Continual complaints have been made of the inadequacy of the accommodation, and it is stated that practically all the rooms are engaged for the summer of 1908. Most of the guests patronizing this hotel are British from Shanghai and Tientsin, though occasional guests come for the summer from as far south as Hongkong and as far north as Newchwang.

The charges in Tsingtau hotels amount to approximately \$4 to \$4.50 gold per day, and other incidentals bring this up to probably an average of \$5 to \$6 gold per guest per day.

In Shanghai there are three good hotels, and a new one in process of construction, but they are all much inferior to the hotels of the United States, largely owing to the lack of knowledge on the part of the managers. Prices charged guests are high, probably more than double those of the same grade of hotel in America, and the cost of servants, food, etc., is very much less than at home.

An organized hotel company with buildings at Shanghai, Hongkong, Tientsin, Yokohama, Kobe, and possibly Nagasaki, Peking, and Manila, with good managers in each port and a general manager spending a portion of the year in each hotel, run on modern American lines, with all conveniences, ought to pay well for the investment. The question of cost is not of great importance to the traveling public, who are willing to pay well for first-class accommodations, but at the present time no traveler will say that there is a really first-class hotel in the Far East.

FAR EASTERN COMPANY REPORTS

THE KANEKAFUCHI COTTON SPINNING Co.—This company declared a dividend of 22% for the year, besides carrying forward to the reserve 741,996 yen, an amount almost equal to the amount distributed in dividends. The dividend for the previous year was at the rate of 16%.

JAPAN FLOUR MILLING Co.—This company declared a dividend of 25%, on December 16th, for the year.

TOKYO ROPE Co.—A dividend of 20% was declared by this company for the year.

GOPENG MINING Co.—Advices received announce the quarterly dividends on Gopen and New Gopen shares at 1s. 6d. and 1s. 3d. a share respectively.

KAWASAKA DOCK Co.—The net profit for the last half of 1907 amounted to yen 504,322, including a surplus brought forward from former account. Of this amount, yen 51,000 has been voted to the general reserve; yen 25,000 to a special reserve and yen 20,000 to reserve for depreciation of machinery, buildings, etc. The sum of yen 274,400 was directed distributed as an ordinary premium and yen 68,800 as a special premium, the two payments being equal to 12.5% per annum as usual. In addition to these distributions of the net profits, yen 22,500 was ordered paid in bonuses to the officials of the company and the balance of yen 42,522 carried forward.

YOKOHAMA DOCK Co.—The net income for the last half of 1907 was yen 153,061 and an interim dividend of 10% was declared.

JAPAN-CHINA FLOUR Co.—The net profit of this company was yen 56 for the last half year of 1907. No dividend was declared.

SHANGHAI DOCK AND ENGINEERING Co., LTD.—This company has declared an interim dividend of Tls. 2.5 a share for the six months ending October 31st, 1907.

BURMA RAILWAYS Co.—The directors of this company have recommended the payment of £1 18s, subject to income tax, on every £100 of stock, for the year ended June 30, 1907. This is over and above the 2.5% interest guaranteed by the Secretary of State for India already paid.

BRITISH AND CHINESE CORPORATION, LTD.—At an extraordinary meeting this company authorized the division of the £100 shares into ten shares each, of £10, £5 paid up.

NETHERLANDS INDIA TRAMWAY Co.—This company announces a profit of 137,790 guilders for the year 1906-7 and a dividend of over 8% was authorized.

TOKYO STEEL FOUNDRY.—This company has declared a dividend of 9.2% per annum for the term.

DENNY, MOTT AND DICKSON, LTD.—This company declared a dividend of 6% per annum for the half-year ending September 30th, 1907.

DAI NIPPON WHALING Co.—At the first general meeting of this company a dividend of 10% per annum was declared.

HUMPHREYS ESTATE AND FINANCE Co., LTD.—At the meeting of this company held January 31st, a dividend of 7% was declared.

HONGKONG LAND RECLAMATION Co., LTD.—A dividend of 7% was declared by this company for the year ending December 31 and a balance of \$287,410.99 was carried to the credit of profit and loss.

WEST POINT BUILDING Co., LTD.—The ninth annual meeting of this company was held January 28th and a dividend of \$2.10 a share was authorized, making a total of \$4.10 for the year.

HONGKONG LAND INVESTMENT AND AGENCY Co.—A final dividend for the year ended December 31st of \$3.50, making in all \$7.00, was directed paid.

THE CHINA PROVIDENT LOAN AND MORTGAGE Co., LTD.—This company has declared a dividend of 8% for the year ended December 31, 1907.

KINTA TIN MINES.—For the year ending June 30, 1907, interim dividends were paid amounting to 10% on the capital and a final dividend of 2.5% was recommended by the directors.

CICELY RUBBER ESTATES Co., LTD.—This company pays an interim dividend on its preference and ordinary shares of 15% each, making in all, for the year 1907, 30% on the ordinary and 35% on the preference shares.

STRAITS TRADING Co.—A dividend of \$1 and a bonus of 50 cents was declared for the half year ending September 30, at the meeting held January 2nd. The net profits after writing off depreciation was \$560,092.69. Of this \$100,000 were added to the Reserve Fund making it \$1,150,000; \$50,000 to the fund for equalizing dividends, making it \$350,000 and \$20,000 were transferred to the Employees' Bonus Account, leaving \$107,691.95 which was carried forward. The smelting works at Pulo Brani and Penang were able to handle the increased business most satisfactorily during the year.

KEIHIN ELECTRIC Co.—At a meeting of the company held December 24, a dividend of 10% was declared for the second half of the financial year and yen 11,003 carried forward.

TOKYO CARDBOARD MILL Co.—This company declared a dividend for the second half of 1907, at the rate of 10% per annum.

YOKOHAMA STOCK AND RICE EXCHANGE.—The report for the second half of the year showed a loss of 230,000 yen, of which yen 180,000 was undertaken by the shareholders and the balance by the directors.

NIPPON ELECTRIC WIRE Co.—A dividend of 7.5% was declared by this company for the second half of 1907.

SETTSU SPINNING Co.—The second half-year of 1907 proved a most prosperous term for this company. At the last meeting of the shareholders, a dividend at the rate of 44% per annum was declared.

BRITISH AND JAPANESE FINANCE CORPORATION.—At a recent meeting this corporation decided to wind up its affairs. This action was taken as a result of the nationalization of railroads in Japan and the unreasonableness of the Japanese borrowers.

CHINA PROVIDENT LOAN AND MORTGAGE Co., LTD.—At the meeting of the company January 29th, a dividend of 8% was authorized on 100,000 old shares which absorbed \$80,000; \$5,000 were placed in the reserve fund and the balance of profit, \$3,593.29, carried forward to next account.

SOUTH CHINA MORNING POST, LTD.—The accounts for the half-year ending August 31 were submitted December 31st, and showed a profit of \$2,702.14. This company has operated at a heavy loss for four years but the directors are encouraged and expect better results in the future.

DULOP RUBBER Co.—This company has authorized a dividend of 100% for the year. The capital of the company is £220,000. After deducting all the liabilities as well as the capital, the assets would amount to £605,000. The shares have a market value of £1,500,000. The total profits earned by the company were £1,194,099.

MALACCA PLANTATIONS Co.—The guaranteed dividend of 3.75% for the year ending December 31 has been announced.

SINGAPORE TRAMWAYS.—The report on this company's workings from incorporation until the end of 1906 shows a deficit. This was due to the low traffic receipts.

DUFF DEVELOPMENT.—The accounts for the year ending December 31 show a gross profit of £6,500 for the first eight months. The wash was sufficient to keep the four dredgers busy for another year and there is reason to believe that the boring operations would develop more ground. £5,900 were expended on capital account during the year, chiefly in rubber planting.

HONGKONG AND SHANGHAI BANKING CORPORATION.—The directors have recommended a dividend of £2 per share of the old issue; a pro-rata dividend, or £1 10s., per share of the new issue; add to the silver reserve fund, \$500,000; and carry forward about \$2,000,000. In addition to the above, the amount received as premium on the new shares has been dealt with as follows:—1. To the purchase of Consols of sufficient nominal value to increase at \$2 the sterling reserve fund by \$500,000, which fund will then stand at £1,500,000. 2. To the transfer to the Silver Reserve Fund of the balance of \$1,250,000.

PERAK SUGAR CULTIVATION Co.—The report for the year ending August 31, 1907, shows a profit of Tls. 11,389.29 which was transferred to profit and loss. After deducting interest on debentures, this account showed a balance of Tls. 9,173.32 which was directed carried forward.

NISSHIN SPINNING Co.—The reports of the second half-year show a profit of yen 3,453.28 which was carried forward.

VULCAN IRON WORKS LTD.—No dividend was declared for the year ending August 31st, 1907. The balance carried forward was Tls. 40,081.56 of which Tls. 12,187.51 was brought forward from the previous year.

INDUSTRIAL BANK OF JAPAN.—At the meeting early this month, a dividend of 7.5% was declared for the half-year.

TOKYO GAS Co.—At the half-year meeting held last month, a dividend of 15% per annum was declared.

TOKYO GODOWN Co.—This company has declared a dividend of 12% per annum for the second half of last year and Yen 79,741 carried forward.

TOKYO KYORITSU GINKO.—This company has declared a dividend of 9% for the term.

ASAKUSA GINKO.—At a recent meeting of this company a dividend of 10% was declared.

TOKYO FARMERS' AND MECHANICS' BANK.—This institution has declared a dividend of 10% for the term just ended.

OJIYO COLLIERY Co.—The report of this institution for the last term was highly satisfactory. A dividend of 36% was declared.

DAI NIPPON BREWERY.—This company declared a dividend of 15% per annum last month.

FUJI COTTON MILL Co.—This company has just concluded a most successful term and, at its semi-annual meeting held last month, a dividend of 25% per annum was declared.

SHANGHAI LAND INVESTMENT Co., LTD.—This company has declared a dividend of 6% and a bonus for the half-year ended December 31st, 1907.

UNION WATERBOAT Co.—The directors in their report submitted February 14th recommended the following disposition of the balance to credit of profit and loss for the year of \$27,589.49:

To write off the value of the boats, \$13,616.77; to pay a dividend of five per cent., \$13,861.50; to carry forward to new account, \$111.22—\$27,589.49.

THIRD BANK OF YOKOHAMA.—The report for the last half-year to December 31st showed a net income for the term of yen 273,148.09 which was distributed as follows: Yen 25,000 as a bonus among the employees, 100,000 to the reserve, 144,000 distributed as a dividend of 12% and the balance carried forward.

AGRICULTURAL AND INDUSTRIAL BANK OF KANAGAWA.—A dividend of 9% was recommended by the directors for the half year ended December 31st.

KAWASAKI BANK.—The net profit of this institution for the last half year of 1907 was yen 235,166.15.

HONGKONG-WHAMPOA DOCK Co.—The directors in their report submitted at the annual meeting of this institution recommended a dividend of \$4 a share equal to 8% and to carry forward \$436,000.

HONGKONG, CANTON AND MACAO STEAM-BOAT Co., LTD.—This company will pay a dividend of \$1.25.

SIAMESE TRAMWAY Co.—This company has authorized the payment of a dividend of 28% for the half year ended December 31st.

OSAKA SHOSEN KAISHA.—The half-yearly General Meeting of the O. S. K. was held January 23rd at the Osaka Municipal Public Hall, when the following accounts were submitted:

	Yen.
Net Profit.....	218,796.275
Brought forward.....	705,012.677
Placed to Reserve.....	11,000.000
Bonuses to officials and employees.....	15,500.000
Dividend at the rate of 6 per cent. per annum.....	467,500.000
Carried forward.....	429,808.952

Directors' report stated that owing to a gradual increase of cargo and the improvement of relations between shipping firms the Kaisha's business was much better than in the previous half-year. The increase of rates which was made in co-operation with the N. Y. K., with regard to the services between Japan and China, Korea and Formosa, and the independent raising of the rate on the domestic services proved successful. Owing, however, to competition by unattached vessels, the fact that the half-year did not include the period for the export of sugar, and some other reasons, the results on the Formosan service were rather unsatisfactory. In consequence of the good rice harvest in China last year, the increase of the number of Japanese in Korea, and other favorable conditions, the services between Japan and China and Korea showed somewhat improved results. The business on the Vladivostock and deep sea services was good, but the new service to India was an entire failure. Business on all the domestic lines is improving generally, the number of passengers and quantity of cargo steadily increasing.

TIN IN CHINA

An interesting résumé of the tin trade in China is included in the comprehensive report made by Sir Alexander Hosie for the year 1906 and published in the British Diplomatic and Consular Reports. He writes:

"Most of the tin imported into China is Chinese tin re-imported. It comes from the Ko-chiu-ch'ang mines in the province of Yünnan, passes through Tonkin, whence it is shipped to Hong-Kong and is there refined in four native refineries, one of which—the largest of the four—I visited during a recent visit to

South China. There was nothing outside the door of the house to indicate that an important industry was carried on within. I found the inside of the establishment piled with tin slabs from Yünnan, each measuring 2 feet by 1 foot by 1 inch, and in juxtaposition, piles of refined ingots each consisting of a top slab with a central rectangular base or foot. I was told that each of these ingots weighed 85 catties or 113½ lbs. The tin arrives from Yünnan in three qualities. The first and second are fairly pure, but the third frequently contains as much as 20 per cent. of lead. The slabs are melted up in concave iron pans, 3 feet in diameter and 1 foot in depth, resting on brick furnaces fed with wood fuel. In the centre of each pan is placed an open upright iron cylinder, 1 foot high and 1 foot in diameter, surrounded near its base on the outside with tin dross through which the molten metal filters into the cylinder and is tossed, skimmed and ladled into sand moulds, emerging when cooled as the ingots described above. The skimmings and dross are treated with charcoal in bellows-furnaces and the resulting metal refined in the usual way. The final dross is sold and finds its way to Shanghai, where it is further treated for the small quantities of tin and iron which it contains. The establishment which I visited could turn out 8 tons a day of the refined metal. The master told me that the tin as it arrived from Yünnan was worth 96 to 97 dol. per picul (16.80 piculs equals 1 ton) and after refining was valued at about 100 dol. Some of the tin goes to the United States and Germany. During each refining a little cube of the metal is run off for analysis. The export of tin from China in 1906 amounted to 4,052 tons against 4,482 tons in 1905, while the import into China in the same years was 2,158 and 3,224 tons respectively, or a decrease in 1906 of 1,066 tons.

"The import of tinned plates rose from 10,395 tons in 1905 to 14,157 tons in 1906, an increase of 3,762 tons and an advance of nearly 128 per cent. on the average import of the previous five years. This increase is due to the rapidly increasing number of kerosene oil tank installations at ports in China which can be reached by steamers carrying oil in bulk and where the oil is tinned for distribution. Three plates, a round cap, 5 inches of galvanised iron wire for a handle, a small round socket for the latter and a little chloride of zinc and solder are required to make up a kerosene tin. All except the soldering, which is done by hand, is manufactured by labour-saving machinery, the product of American inventive genius. The plates are flattened, hemmed, folded, joined, the bottoms and tops cut and inserted, the handles folded and the tops punched for filling purposes by one machine after another. Feeding the machines is all that is required. The empty tins are placed on a scale or balance and the filling tube inserted in the punched orifice in the top. As soon as the necessary amount of oil has found its way into the tin, the balance falls and automatically closes the tube. But I am not so much concerned here with the oil as with the tin. So valuable has the latter recently become (in the United Kingdom the price ranged between 161. and 215. per ton in 1906) that all the punched and refuse plates are bundled up and shipped to Europe where the valuable tin is extracted for future use. As for the old used kerosene tins, they have become a *sine qua non* in China. They are eagerly bought up by the native tinsmiths at prices ranging from 10 to 14 c. apiece and manufactured into all kinds of household utensils and requirements—buckets, kettles, lamps, jugs, cups, candlesticks and innumerable other articles. The old kerosene tin almost rivals the bamboo in its uses."

MINING NEWS

The Benguet Consolidated Mining Co., Baguio, Benguet, P. I., will more than double its present capacity by March 1st. The new three stamp mill has been installed and a steel flume to replace the old wooden flume by which water power is developed to run the plant, has just been completed. The new flume which was built by the Atlantic, Gulf and Pacific Co. is

over a mile in length and cost over ₱10,000 to install. Manager Eye has just completed the installation of a set of agitators for the cyanide plant which will increase the saving from 15 to 20%. This equipment is entirely due to the genius of Manager Eye who constructed the tanks from the material at hand and assembled the necessary parts and installed them. Messrs. Manuel Earnshaw & Co. made the details necessary from the designs prepared by Manager Eye, and the intricate parts were secured from Messrs. Joshua Hendy & Co. of San Francisco. This equipment cost about ₱5,000. The annual meeting of this company was held at Manila, February 14th, and a handsome dividend was declared. According to latest reports, over 2,000 feet of tunneling has been completed and there is over 500,000 tons of ore in sight. A residence for the manager is being constructed at a cost of ₱4,000.

The Paracale Gold Dredging Co. operating in the Camarines, Philippines, which was shut down about three months ago on account of the bursting of a boiler, has resumed work. This company had just begun preliminary work, when the accident occurred and for that reason, the result obtained cannot be used as a basis of estimate for the future. However, during the eight hours of actual work, over 100 oz. of gold was realized. In addition several tons of black sand containing a large percentage of gold were secured and samples of this product have been sent to England and America to be tested for the purpose of developing the process whereby the greater portion of the metal may be realized.

The placer properties of San Mauricio near Mabula, Camarines, are being developed and there is promise of greater activity in the near future at those historic fields.

The Gold Bug property in Masbate has been shut down pending the addition of a cyanide plant as much of the value of the ore run through the stamps is lost on account of the lack of this equipment.

JAPAN'S GOLD MINES

The abundance of gold to be found in Satsuma has of late attracted the attention of capitalists. There are altogether 197 gold mines or rather mining districts many of which are being worked from times gone by, says the *Japan Times*. Though the precise figure of the output can not be ascertained, as the greater number of these districts are worked after the olden style commonly called hand digging and on a small scale with limited capital, the yield is grossly estimated at the value of 3 million yen or more a year. Besides this no small amount of ore is pocketed by miners who, taking advantage of incomplete surveillance, secretly take possession of the best ore and sells it to the buyers of stolen minerals who haunt the localities for the purpose. The important mines are those possessed by the Shimazu family, Mitsui family, Ushiro Joint Stock Company, Otani partnership, Messrs. Kichibei Murai and Soichiro Asano and others. The mines owned by the Shimazu family, in Aira-gori, Heki-gori, Satsuma-gori and Isagori extend for 2,855,337 tsubo, while the Mitsui family has ten mining districts in Kusugino, Heki-gori, covering an area of 660,713 tsubo. The Ushiro Mining Co., with a capital of a million yen, possesses two mines at Isagori, and is doing a good business, declaring a dividend of 30 per cent. last term. The other chief mines are 1,320,000 tsubo of Mr. Asano, 170,000 tsubo of Mr. Murai and 200,000 tsubo of the Otani Co. At Aira-gori another mining company has been recently started with a capital of 800,000 yen. This new enterprise is working a quite modern mining system using water power electricity for the operation of its machinery. Thus the mining industry in the province being still in its infancy there promises to be enough room for those aspiring businessmen looking for profitable investment. At any rate on the completion of the Hisatsu Railway the local industry will surely assume a new and prosperous aspect.

FAR EASTERN ENGINEERING, CONSTRUCTION, COMMERCIAL AND FINANCIAL NEWS

ELECTRIC RAILWAYS, LIGHT, POWER, TELEGRAPHS, ETC.

PENANG RAILWAY OFFICES.—These offices are to be ventilated and lighted by electricity.

WIRELESS PHOTOGRAPHY.—Advices from Paris announce the successful transmission of a photograph by wireless telegraphy.

SENDAI ELECTRIC POWER COMPANY.—A Japanese company with a capital of yen 200,000 has been organized to establish a plant at Sendai.

TIBET-PEKING TELEGRAPH LINE.—The Chinese government has authorized the construction of a telegraph line connecting Peking with Lhassa.

SIAM ELECTRIC RAILWAYS.—This company is now watering the roadways along which its lines are laid by special contract with the Siamese government.

BANGKOK DOCK LIGHTING.—The Bangkok Dock Co. has installed the economic safety gas lighting system on their docks. The plant has a capacity of 1,000 candle power.

TOKYO OVERHEAD ELECTRIC.—A project is on foot, in which Sir Clifton Robinson is interested, to raise 27 million yen for the purpose of constructing an elevated electric railway connecting Shingawa with Senju.

MONGOLIA TELEGRAPHS.—The chiefs of the Mongolian tribes have raised Tls. 830,000 and have petitioned the Board of Posts and Communications at Peking to send some capable engineers to take charge of the construction and installation of a complete system of telegraph lines, in that territory.

HONGKONG TRAMWAY LINES.—The correspondent of the *North-China Daily News* at Hongkong writes that the present tramway to the Peak is not capable of handling the traffic and intimates that if the company that proposed the new tram line had not been absorbed by the present operating company, the projected second line might now be relieving the congestion.

F. M. S. GOVERNMENT TELEGRAPHS.—New regulations were put in force January 1st, providing for the payment of tolls in stamps, and the following rates are charged: To any office in Penang, Province Wellesley, Malacca or the Federated Malay States urgent, per word 9 cents; ordinary 3 cents; with a minimum charge per message of 63 cents, urgent, and 21 cents, ordinary.

AMERICAN KOREAN ELECTRIC CO.—This company operates 12 miles of track in Seoul and is equipped with 370 passenger and 18 freight cars, according to a late report. The net earnings for the fiscal year 1906 were \$25,324, this amount being about a quarter of the gross earnings. Few accidents occur on this system, the company having inaugurated a reward to employees in the form of a bonus paid at the end of each month during which no accidents occur.

RAILWAY AND RAILWAY SUPPLIES

SEOUL-WIJU RAILWAY.—The ceremony of the opening of this line will take place at Ryongsan, April 1st.

SANYO RAILWAY PURCHASE.—The purchase price of this road to the Japanese government is fixed at yen 80,416,946.96.

CANTON RAILWAY.—The Board of Communications has directed the company to begin construction of the line immediately.

SIAMESE RAILWAYS.—The Eastern line to Patrie and the continuation of the Northern line to Pitsanulok are now open to traffic.

KOISHIKAWA LINE OPEN.—The section of the Tokio Railway between Omagara and Edogawa was opened to traffic last month.

YOKOHAMA-HACHIOJI-RAILWAY.—The construction of this line is progressing rapidly and it will be completed by the end of March.

WAGON LITS TRAIN SERVICE.—The Tientsin branch of Messrs. Shewan Tomes & Co. has taken over the agency of this service there.

BRITISH NORTH BORNEO RAILWAYS.—There are over 125 miles of railway in this territory in operation and more than that length projected.

F. M. S. RAILWAYS.—The construction of the new depot at Ipoh is progressing rapidly and the rails have been laid for some distance on the Tronoh extension.

ILI-LANCHOW RAILWAY.—An effort is being made to authorize a loan of Tls. 1,500,000 for the purpose of constructing a road between Ili and Lanchow, Kansu.

OTARU RAILWAY MATERIAL.—A cargo of railway material arrived on the S. S. Katanga for the new line under construction in Yezo. Over 1,000 tons were billed for Otaru.

INTERNATIONAL SLEEPING CAR CO.—The Osaka Shoson Kaisha has made a special contract with this company to open a steamer and train connection on the Vladivostok line.

JAPANESE RAILWAY BUREAU RECEIPTS.—For November, yen 6,133,461 from all sources, an increase of yen 2,691,709 compared with the income for the corresponding term 1906.

AMUR RAILWAY CONSTRUCTION.—The Russian government has decided to undertake the work of construction itself and has abandoned its original plan to give the work over to contractors.

THE SUNNING RAILWAY.—The section of this line between Sunning and Kungyikfu was opened to the public January 4th. Work has also commenced on the section from Sunning to Chunglan.

NEW INDIAN RAILWAYS PROJECTED.—Surveys are being made for a line connecting Phaphamu and Rai Bareilly about 75 miles in length which will establish the connection between Lucknow and Allahabad.

PROJECTED JAPANESE RAILWAYS.—Ten primitive railway lines, a total length of 300 miles, await official approval. Two of the lines have their terminals in Tokio and connect that city with Shibukawa and Kamada.

SAMARANG STEAM TRAMWAY.—The tramway connecting Samarang and Joana in Java has just completed its 25th year and it is the purpose of the company to distribute 20,000 guilders among the lower grades of employees.

MUKDEN-ANTUNGSHIEN RAILWAY.—The South Manchurian Railway loan of two million yen for the purpose of constructing a branch connecting Antung and Mukden has been authorized by the Department of Communications.

CANTON-HANKOW RAILWAY.—It is reported that a large Chinese Syndicate has offered to finance the construction of the Chengtu-Hankow-Canton railway and will not demand any return on the investment until the road is operating.

INSULAR COAL COMPANY RAILWAY.—This company has made application to the Philippine Commission for a franchise to construct a railway from the shore at Danao, Cebu, to the coal deposits at Camansi, a distance of 12 kilometers.

SANYO RAILWAY PURCHASE.—The price of purchase arrived at for the transfer of this road to the Japanese government has been fixed at yen 82,302,902, which includes the line, rolling stock, furniture, buildings and ships and other equipment owned and operated by the company.

PROPOSED MONGOLIAN RAILWAY.—The viceroy of the Shen Kan provinces has sent a memorial to Peking for approval of a scheme to connect Ili, Mongolia and Lanchow, the capital of the province of Kansu, by a railway. He estimates the cost of this project at Tls. 1,500,000.

INTERNATIONAL SLEEPING CAR CO.—This Belgian company has decided to establish a branch office at Yokohama for the purpose of handling its Siberian business more expeditiously. The announcement is made that other branches at different points in the Far East are contemplated.

KONGTSUN-SUN KAI RAILWAY.—The Canton correspondent of the Hongkong Telegraph writes that the directors of the Canton-Hankow Railway have decided that the two sections from Kongtsun to Kwok Tong and from there to Sun Kai now complete will be opened to traffic at an early date.

RAILWAY TO NEWCHWANG.—The Peking authorities are reported to be considering the advisability of constructing a railroad between Tangchow via Shanhaiwan to Mokaoying, a point near Newchwang. Engineers have been dispatched to examine the country with a view to ascertaining the best route.

YUEN-HAN RAILWAY.—The correspondent of the *North-China Daily News* writes that the construction work is being carried on into Honan Hupeh has raised the money necessary to carry the road as far as Changsha and from there to Chuchao. The Pinghsiang mines have already been connected with Chuchao by rail.

SOUTHERN MANCHURIAN RAILWAY BRIDGES.—Steel for the construction of permanent bridges has arrived from America and work will commence at once with a view to completing the new bridges by the end of June. The original bridges were destroyed by the Russians during the war and those replacing them were of a very temporary character.

NEW CHINESE RAILWAY.—The Board of Communications has concluded plans for a Railway from Taiyuenfu to Tungkwan on the bank of the Yellow River and thence to Sianfu and Chiayukwan, connecting with the line from Sinkiang to Tibet. The governors of the provinces of Shansi, Kansu and Szechuan have been instructed to devise means to carry out this scheme.

TO USE MOTOR CARS.—The Japanese Imperial Railway office intends to utilize motor cars to connect different sections of the Railway system if feasible. Two motor cars ordered by the Kwansai Railway Co. arrived at Osaka at the beginning of the month and will be used between Sakarano-miya and Kidzu as an experiment. If successful, other motor coaches will be introduced.

IMPERIAL CHINESE RAILWAYS.—A battery of six vertical multibular boilers have been ordered by the Imperial Railways to be used in supplying power for the pneumatic and other machinery used in the construction of the Lanchow Bridge in the interior of North China. The boilers were ordered in this form for the purpose of meeting unfavorable conditions of transportation.

TIENTSIN-YANGTZE RAILWAY LOAN.—This loan agreement between the Waiwupu and the Anglo-German Syndicate was signed January 13. The loan amounts to \$25,000,000 to be issued within one year at 9% and to bear interest at 5%. The length of the line is 675 miles. The sovereign rights of China are recognized and full control is vested in the Chinese government. It is expected that the line will be completed within four years.

SIAMESE RAILWAYS.—The new line to connect Bangkok with the mainland opposite Penang and the F. M. S. Railway system is now being surveyed and will be under control of British officials. The line connecting Bangkok with Chiengmai and the Burma frontier is progressing slowly but surely owing to the difficult nature of the country through which it is being constructed. This line is under the control of German officials as well as the 264 kilometers to Korat.

RAILWAY CITY NEAR MUKDEN.—The South Manchurian Railway Co. proposed expending yen 8,000,000 for the purpose of establishing a city immediately west of the city of Mukden. Report has it that the company has 650,000 tsuho of land in that vicinity which it will devote to the town site. It will build a new depot within the city and build a wide thoroughfare to the old city of Mukden. The land within the new city limits will be leased to private persons at a reasonable rental.

MANCHURIA RAILWAY SUPPLIES.—The South Manchuria Railway's order with the American steel manufacturers was for 208 engines, 80 passenger cars and 2100 trucks. Of this order 26 engines and 660 cars and trucks have been delivered, the balance being expected in August, 1908. The rolling stock now in use is adapted to the narrow gauge and consists of 217 engines, 56 passenger coaches and 3,136 trucks. This rolling stock will be sent home as soon as it is replaced by the standard gauge.

CANTON-HANKOW RAILWAY.—Latest advices are to the effect that structural work on this road will be pushed in the provinces of Kuangtung, Hupei and Hunan, simultaneously and that the entire project will be completed within three years. It has been practically decided to build the terminal station at Wuchang instead of Hankow while the terminal of Szechuan-Hankow trunk line will be constructed at Hanyang, both of which will be connected with the Peking-Hankow line at Hankow by two iron bridges over the Han River.

PUBLIC AND PORT WORKS, DOCKS, WHARVES, ETC.

KRIAN IRRIGATION WORKS.—The estimated revenue from the works for the year has been placed at \$40,000 dollars.

NEW ENGINEERING FIRM.—Messrs. Brighton, Malcolm & Co. is the name of a new engineering firm located at Shanghai.

KUALA SELANGOR IRRIGATION.—The Krian irrigation system is to be duplicated for Kuala Selangor if the movement among the planters and officials there is carried out.

IRRIGATION FOR HEMP.—Advices from Davao are to the effect that the hemp returns from that section have been greatly increased by the introduction of irrigation. Several systems are projected.

KUALA LUMPUR WATER WORKS.—The sum of \$300,000 will be expended on the extension of the Kuala Lumpur system during the year. This is part of the total estimate for this work of \$700,000.

OMOTO HARBOR WORKS.—The Mitsu colliery is making rapid headway in the work of improvement of the harbor. The pier is not yet completed but the harbor will be opened for special export of coal by the company, April 1st.

SOURABAYA NAVAL DOCKS.—The Netherlands India government has arranged for extensive dredging and harbor improvement works at Sourabaya in order to make the harbor available to large vessels and will very probably complete plans for a large naval dock.

SIAM PUBLIC WORKS.—A program of roadbuilding is under consideration by the public works department of Siam which includes a road from Raheng to Chiengmai. The survey of Eastern Siam with a view of connecting the most important points by good roads is also under way.

CALCUTTA WATER SUPPLY.—A scheme has been proposed to increase the capacity of the water supply for Calcutta to 30,000,000 gallons a day and provision for expansion to 40,000,000 a day. According to the promoters, this project would take over five years to complete.

FORMOSAN IRRIGATION.—The Japanese government is considering the development of irrigation systems on a large scale in Formosa and when completed will cover an area of 750,000 acres, a portion of which is already benefited by an old Chinese system. Japanese engineers have been sent to America to study the methods employed there.

SINGAPORE RIVER IMPROVEMENT.—A bill has been introduced in the Legislative Council to provide an appropriation for the reconstruction of the revetment walls and otherwise put them in the best possible condition. The bill also provides that the cost of the work be borne equally each by the Colony, municipality and property owners.

WHANGPOO TENDERS.—The Whangpoo Conservancy Board has advertised for tenders for the supply of 54 tons of seizing wire in monthly instalments of four and one-half tons. The proposals will be opened at the office of the secretary in Shanghai, February 15. Each strand of wire must consist of seven threads of No. 21 B. W. G. galvanized iron wire.

SINGAPORE HARBOR IMPROVEMENT.—Mr. William King, wharf manager of the Tanjong Pagar Dock Board has been visiting all the large ports of Europe with a view to familiarize himself with any innovations in the handling of cargo and coal handling that might appeal to him as desirable in carrying out the gigantic plans projected for the improvement of the harbor at Singapore that is to cost £8,000,000.

JAPANESE HARBOR WORKS.—The completion of the harbor works at Yokohama have been postponed for one year by the government. This was the result of an agreement among the different departments that in view of the necessity of giving up several new government enterprises, the postponements should be proportionate. As a result the Kobe works will not be completed until 1914 and a proportionate delay will affect the work at Yokohama.

BURMA IRRIGATION WORKS.—The report for the year shows an irrigable area of 645,000 acres included in the system of minor works of which but 246,000 acres were under cultivation owing to the slow rate at which the jungle is being cleared and occupied by prospective settlers. According to the Rangoon Times, there has been a fair return on the capital invested and points to the increase in the net revenues from the Mandalay system alone of Rs. 83,000. Rs. 1,96,000 represents the outlay for repairs and Rs. 3,19,000 for construction of new works.

PORT DICKSON WATER SUPPLY.—The new water supply system of this, the chief port of Negri Sembilan, F. M. S., was formally inaugurated December 23 and the plant taken over by the government from the Se-remban Engineering Co., the contractors. The plant consists of two sets of Samson Oil Engines directly connected with pumps by which the water is elevated from a large well and to reinforced concrete tank of 60,000 gallons capacity, situated on an eminence overlooking the port. The water is supplied from this reservoir by gravitation with a pressure of 60 pounds to the square inch. The engines may be used alternately.

JAPANESE WATER POWER SCHEMES.—Engineer Howells, who has been investigating the prospects of utilizing the different water courses of Japan for the supply of power to the industrial centers, reports that on the Tashiragawa River 66,000 h. p. may be developed by the construction of a tunnel four miles in length and by another tunnel of ten miles and some canal construction 150,000 h. p. could be realized. Additional sources of power are Lake Chueji near Nikko, where four miles of tunnel would give a fall of 2,000 feet and in the Lake Inawashiro district, where upwards of 50,000 h. p. could be secured with but four miles of tunnel. After a study of the principal sites and rainfall record, Mr. Howells claims that over 300,000 h. p. could be provided by the initial plants. The sites are within easy transmission distance of Tokyo, the shortest distance being but eighty miles.

SHIPBUILDING, GENERAL MARINE, FISHERIES, ETC.

LITTORAL FISHERIES.—These fisheries will be auctioned for lease at Vladivostok, February 28.

LINE TO PORTLAND, OREGON.—The Osaka Shosen Kaisha will soon inaugurate a steamship service between Japan and Portland.

SWEDISH EAST ASIATIC LINE.—This company has ordered one 7,300 ton steamer to be built at Newcastle and another at Copenhagen.

MARINE PRODUCTS SCHOOL.—Tientsin is to have a marine products school to be built and directed by the Director of Education of Chihli.

NEW JAPANESE DISPATCH BOAT.—The Yodo, which was recently launched by the Kawasaki Dockyards will be fitted for service next July.

RUSSIAN EAST ASIATIC S. S. CO.—This line has provided a fortnightly service between Vladivostok, Nagasaki, Kobe, Yokohama and Shanghai.

MANILA SHIPPING.—The Philippine Commission is considering a bill to remove the duty on ship supplies for foreign vessels entering Philippine waters.

F. M. S. RAILWAY LIGHTERS.—Messrs. Howarth, Erskine & Co. of Singapore have secured the contract for the construction of six steel lighters for the railway.

TONNAGE AT MOJI.—The aggregate tonnage of steamers calling at this port for the year is estimated at 10,000,000 tons, the largest showing of any Japanese port.

MANCHURIA MARINE PRODUCTS CO.—Japanese capitalists have organized a company with a capital stock of yen 500,000 and will establish their head office at Dalny.

PISCICULTURE IN HONGKONG.—It is reported that a consignment of trout ova will soon be introduced into the reservoirs in Hongkong and vicinity. These ova come from Canada.

LOW FLOUR RATE FROM SEATTLE.—The seven steamship companies in the Pacific carrying trade agreed to a rate of \$3 50 a ton from American ports to Japan and it went into effect January 1st.

PEARL BUTTON FACTORY FOR ZAMBOANGA.—Manager Clark of the Australian Pearling fleet proposes establishing a factory in Moroland for the purpose of utilizing the mother of pearl accumulated by his fleet.

CHEFOO BREAKWATER.—The Chefoo Post is advocating a breakwater to protect that port during the severe seasons. It claims that about one-sixth of the year was lost to trade owing to the exposure of that port to storms.

ONE FATHOM BANK LIGHTHOUSE.—This construction, which is under the direction of Messrs. Riley, Hargreaves & Co. is nearing completion. It is built of ferro-concrete on deep piles. When in operation the beacon will be visible for fifty miles.

JAPANESE RAILWAY BUREAU STEAMER.—The *Hirafu Maru*, built by the Denny Shipbuilding Dockyard, Glasgow, went into service the middle of last month between Aomori and Hakodate. She is equipped with turbines and is of 1,500 tons.

SEAMLESS MOTOR BOATS FOR BORNEO.—Two seamless steel motor boats built by Messrs. Thornycroft of Chiswick for service in Borneo are thirty feet in length, 8 foot beam with 22 in. draught and a speed of 8.5 knots an hour. Borneo benzine will be used.

TOYO KISEN KAISHA.—This company has floated a new loan of one million yen, repayable in two years. The issue is at 98 with interest at 7%. The entire amount has been subscribed by the Industrial Bank, the Mitsui Bishi Banking Department and the First Bank.

KARA SEA TRADE.—The Northern passage to the Kara Sea is being utilized by a Hamburg shipping combination to increase its Northern Siberian trade. This route was discovered originally by a famous Englishman, Captain Joseph Wiggins, to the mouths of the Obi and Yenesei.

HONGKONG AND WHAMPOA DOCK CO.—According to the South China Morning Post, four shallow draught gunboats have been ordered by the Canton authorities and will be built by the Hongkong Whampoa Dock Co. They will be used for river patrol and the cost is estimated at approximately \$60,000.

MOTOR BOAT INDUSTRY AT HONGKONG.—Messrs. Wilks & Jack, Ltd., have received another order for a harbor launch for Canton. These vessels make about 10 knots an hour and are constructed at the firm's yards at Taikotsui. Four heavy teak wood cargo boats were built by this firm during the year for the Kowloon-Canton Railway.

PORT OF TSINGTAU.—Great activity is reported in shipping circles at this port. The harbor is equipped with every facility to expedite the handling of cargoes. A floating dock of 15,000 tons is another innovation and a 150 ton crane has been installed. The docks are connected by railway with the distributing center and evidence of appreciation is found in the presence of a large number of vessels continually in this port.

NUMBER OF JAPANESE STEAMERS.—According to official returns made at the end of November last the number of Japanese steamers is as follows:

	Number	Tonnage
20 to 100 tons	713	32,738
100 to 300 "	283	47,485
300 to 500 "	94	36,561
500 to 1,000 tons	140	101,736
1,000 to 2,000 "	131	199,318
2,000 to 3,000 "	117	286,162
3,000 to 4,000 "	49	166,889
4,000 to 5,000 "	18	79,950
5,000 to 6,000 "	6	31,972
6,000 to 7,000 "	20	125,022
Over 7,000 tons	1	7,463

MINES, MINERALS AND THE METAL TRADE

ECHIGO PETROLEUM OUTPUT.—The yearly returns show yield of 7,037,179 gallons.

ONO SILVER MINES.—Japanese prospectors have discovered valuable gold and silver deposits at Ono, near Yamaguchi in Japan.

SHANTUNG MINING PROSPECTS.—Some Germans have staked out coal fields in Chuchou and have applied for permission to develop them.

HAINAN MINERAL DEPOSITS.—Two companies have been granted franchises to develop the tin, silver and gold deposits of the island of Hainan.

RAUB GOLD OUTPUT.—For four weeks ending December 28, Bukit Koman 3,669 tons crushed, result, 952 ounces; Bukit Malacca, 2,026 tons crushed, result, 178 ounces.

SHANSI MINES.—The difficulties between the Peking Syndicate and the natives of Shansi in regard to the development of the mineral resources there have not yet been adjusted.

MOKO GOLD MINES.—The Russian minister at Peking has made a demand on the Chinese Government for 1,000,000 taels as compensation for the return of the Moko gold mines in Amur to China.

KOBE OIL REFINERY.—Messrs. Samuel & Co. have completed plans for the establishment of a refinery at Kobe for the purpose of competing against American Oil. They will import Borneo product.

NEW F. M. S. MINING CO.—The Kramat Pulai Company has been organized with a capital stock of £100,000 to adopt an agreement with Loke Chow Thye to explore for minerals in the Federated Malay States.

VALUABLE SAPPHIRE GEMMED.—A report from Ceylon announces the gemming of a cone-shaped blue sapphire of the first water in a pit belonging to Kalawana Korala in Ceylon. The weight was 28.8 oz.

CHANGES IN MINE MANAGEMENT.—Manager McCready recently in charge of the Jeher Tin Mining Co.'s. property at Tanjong Malim, is now in charge of the operations of a syndicate operating in the Western Siamese States.

HONAN COLLIERIES.—The Peking Syndicate recently installed two pumps with a capacity of 75,000 gallons an hour each at the Ja-Mei-Sen collieries and as a result the work of development has been greatly increased.

F. M. S. TIN EXPORTS.—The entire export for the year 1907 from the Federated Malay States amounted to 709,932.55 piculs, a decrease of 13,274.96 piculs compared with 1906. This does not include the export from Pahang.

OBITUARY.—The death of Mr. T. H. Bath manager of the Bruang Tin Mining Co., and one of the leading mining men of the East, at the General Hospital, Singapore, last month, is reported. A widow and two children mourn his loss.

TURKESTAN GOLD MINES.—The Russian government has been active in exploring the gold deposits of Chinese Turkestan regardless of the protests of the governor, and Russian mining engineers are now at Kushan surveying the gold mines there.

DREDGING IN KELANTIN.—Operating with a 3 cubic foot bucket dredge on hard schist, limestone and marble, one outfit in Kelantin, Malay Peninsula, recovered 1,000 ounces of gold for the 26 weeks ending June 30, 1907. The average hours worked per week were 127.

MALACCA TIN DREDGING CO.—Messrs. Riley, Hargreaves & Co., of Singapore, recently completed a powerful suction dredger for the Malacca Tin Mining Co., the first of its kind introduced in the Straits Settlements. It has a capacity of 100 tons an hour from a depth of 30 feet.

NORTH MANCHURIAN MINING.—The Chinese-Russian agreement regarding the mines along the route of the Chinese Eastern Railway in Kirin and the Amur provinces provides for Russian mining privileges within the limit of 50 miles on both sides of the line instead of 30 miles as arranged by former agreement.

DECEMBER TIN OUTPUTS.—The following is approximately correct: Serendah Hydraulic Mines, 1,090 piculs; Société des Etains de Kinta, 2,725 piculs; Tronoh Mines, 3,657 piculs; Belat Tin Mining Co., 353.50 piculs; Kuantan Tin Mining Co., 353.25 piculs; Pusing Lama Tin Mines, 657 piculs; Gopeng Tin Mines, 550 piculs; New Gopeng, 240 piculs; Redhills Tin Mines, 520; Kinta Tin Mines, 520 piculs; Kladang, 392 piculs.

KOREAN MINING.—The Mining Office of Korea has issued a report on the industry for the past year. The Korean government expended yen 40,000 in developing the Pingyang coal mines and the future is believed to be encouraging. Few mines affected by the recent disturbances have been opened. Little progress has been made in rearranging the imperial estate mines. Many valuable copper veins have been discovered throughout the country, especially at Kanto, and Japanese prospectors have been active during the year.

BENGUET MINING ASSOCIATION.—Forty miners interested in gold properties in the province of Benguet, Philippine Islands, met at Baguio the latter part of December and organized to advance the interests of mining in that district. The society gives as its object the framing of local regulations, the arbitration of mining disputes, the prevention of wild cat schemes, the establishment of an information and labor bureau, the construction of roads and to provide for accurate information about the district. This district is eight years old and there are already three plants operating successfully. The investment represents about \$200,000.

PERAK CHAMBER OF MINES.—This association was organized at a well attended meeting of the leading miners at the Ipoh Club in December for the purpose of safeguarding the interests of those interested in the mining industry of Perak. The yearly subscription was fixed at \$200.00 for companies and \$10.00 for individual members. Mr. Douglas Osborne was elected president. At the first meeting of the chamber after organization it was agreed to fix the wages of Chinese unskilled laborers at 60 cents a day and other nationalities at 40 cents a day. In addition it was decided to reduce the price of all contracts at least 10% from the first of the year.

JAPANESE MINING.—The Mining Bureau at Tokyo has published a list of the leading mining concerns that have a yearly output of over one million yen, which follows:

The Mitsui Mining Co.—11,700,000 yen, Mitsubishi Firm—10,700,000, Furukawa Mining Co.—9,500,000, Fujita Firm—7,400,000, Hokkaido Colliery Co.—7,200,000, Mr. K. Sumitomo—5,000,000, Mr. T. Kajima—4,200,000, Mr. K. Yasukawa—2,100,000, the Hoden Petroleum Oil Co.—2,000,000, Mr. C. Tanaka—1,900,000, Mr. T. Aso-o—1,600,000, Mr. S. Hiraoka—1,500,000, Count Mouri—1,500,000, Iwaki Colliery Co.—1,300,000 and the Department of Agriculture and Commerce—1,100,000 yen.

NEW JAPANESE MINES.—The Japanese government has given permission to the mine owners to proceed to the development of the following properties:

Iron.—Kangsi, Phayongan-do (1,894,000 tsubo); Chonchupang, Hwanju district, Hwanghai-do (234,633 tsubo.)

Gold dust.—Ichhon, Yangji district, Kyongki-do (57 cho 18 ken); Unammyon, Chasan district, Phayongan-do (198,925 tsubo); Tok-myon, Chhungju district, Chhungchong-do (94,946 tsubo.)

Gold.—Fusan-myon, Tonghwa district, Kyongsan-do (598,255 tsubo.)

Silver, copper and lead.—Puk-myon, Kaphong district, Kyongki-do (196,350 tsubo); Hatok-myon, Koje island, Kyongsan-do (59,520 tsubo.)

FINANCIAL AND MISCELLANEOUS

FORMOSAN RICE CROPS.—This crop will reach over 4,000,000 koku, an increase over last year.

JAPANESE SAVINGS BANKS.—The total amount of deposits on December 25th was yen 91,477,202.

CHEFOO INTERNATIONAL CHAMBER.—Five of the leading firms in Chefoo have organized an international chamber of commerce.

BURMA AGRICULTURAL BANK.—The financial commissioner will submit a plan to the Burma government for the establishment of an agricultural bank.

NEW TOKYO BANK.—A charter has been granted to the Nissin Banking Co. to establish a bank at the Japanese capital with a capital of one million yen.

POPULATION OF FORMOSA.—The latest census of Formosa places the population at 3,080,845 of which 71,040 are Japanese and 10,291 foreigners, including Chinese.

PULP FROM SUGAR CANE REFUSE.—Advices from Trinidad, West Indies, announce that pulp from the refuse of sugar cane has been used successfully in the manufacture of paper.

UNITED MANCHURIA MILL Co.—This is the title of the combination of flour mill companies that control the milling business of Manchuria. It has received a subsidy from the Russian government of 2,500,000 roubles.

JARDINE, MATHESON & Co's. NEW BUILDINGS.—Excavations on the site of this new structure at the corner of Des Voeux Road and Pedder Street, Hongkong is well under way and the construction will be expedited.

AUSTRALIAN COLD STORAGE.—According to the Australian World, Manager W. H. Stevens, of the Australian Cold Storage Co., is quoted as stating that the trade between Singapore and Queensland has doubled in the last year.

JAPANESE TOBACCO MONOPOLY.—The Japanese government advanced the price of tobacco 28% on the 28th of December. It is expected that yen 12,900,000 will be realized in revenue during the year as a result of the advance.

TEHLING FLOUR MILL.—Japanese capitalists have invested yen 130,000 in a modern flour mill at Tieling, Manchuria, and the machinery will be installed so that operations will begin April 1st. The mill will have a capacity of 100 koku a day.

F. M. S. RUBBER.—The total of rubber exported from the States for the year 1907 was 1,984,285 pounds, an increase of 955,493 pounds over 1906. The export by states follows: Perak, 255,530 pounds; Selangor, 1,198,751; Negri Sembilan, 530,004; Pahang, None.

ORIENTAL COLONIZATION ASSOCIATION.—A company with a capital stock of ten million yen, under the auspices of the Oriental Association, of which Marquis Katsura is head, has been organized at Tokio for the purpose of developing Korea and colonizing other sections of the Orient. A subsidy from the Japanese government is anticipated.

HONAN COTTON MILL.—A mill with 25,000 spindles is now in course of construction at Changte-fu, Honan, which will be equipped with ginning and cotton-seed extracting machines. The machinery is being installed by Messrs. Holliday, Wise & Co. of Shanghai. The cotton used will be supplied from the cotton plantations covering an area of 15 square miles in the vicinity.

SHANGHAI INSTITUTE OF ARCHITECTS.—This society was incorporated at Hongkong last month with the following officers named:

President, Mr. W. M. Dowdall; Vice-Presidents, Messrs. Walter Scott and Arthur Dallas. Council, Messrs. A. E. Algar, J. Ambrose, Gilbert Davies, and R. B. Moorhead; Acting Secretary, Mr. R. M. Saker.

SOUTHERN CROSS PLANTATION Co.—This company, which owns a plantation on the island of Lapac near Siasi, Mindanao, is engaged in cultivating tapioca, rubber, copra and cotton. The company has 50,000 tapioca plants, and 5,000 rubber trees. Manager Holmes, who was in Manila last month for supplies, states that he will set out 10,000 cocoanuts and 20,000 rubber trees this year.

MANILA HOTEL PROJECT.—A company has been formed with a capital stock of P300,000 for the purpose of constructing a modern hotel on the new Luneta site. This stock will be offered to the public. First mortgage bonds will be issued to the amount of P900,000. The hotel proposed will have 150 rooms and modern equipment. It is believed that the Philippine government will take up a large portion of the bonds.

PHILIPPINE PINEAPPLE INDUSTRY.—Swiss capital is reported to be interested in the proposed establishment of a canning factory in the Philippines for the purpose of canning pineapples. The scheme includes the purchase of 1,200 hectares of land for the cultivation of this fruit. Mr. Adoiphe Landau, a brother of the manager of the canning factory at Singapore, visited Manila last month to investigate the pineapple situation.

THE RUBBER SUBSTITUTE.—Messrs. Russell Grant and Co. state:—In good quarters it is told that an American syndicate has been formed for the manufacture of rubber by a certain chemical process which has been discovered. The names of strong people are mentioned as being members of the syndicate, and to its formation is attributed the recent weakness of the price of rubber and of rubber companies' shares. Of course, attempts at artificial rubber manufacture have been made over and over again without success.

HONOLULU SUGAR COMPANY DISCONTINUES.—The Ookala Sugar Plantation Co., which has been operating in Hawaii for 28 years, may be liquidated after taking off the 1910 crop. During its operation but 21% in dividends have been declared and it is believed that without the expense of planting for the next three years that the stockholders will be able to realize \$13.74 a share after all the indebtedness is paid up. The par value of the shares is \$20.00. The lack of success of the enterprise is due to the poor quality of the soil, the crops from the plantation being the smallest in returns of any in the islands.

CURRENT NEW YORK WHOLESALE PRICES OF METALS, MINERALS, CHEMICALS, ETC.

Selected from the Engineering and Mining Journal

ABRASIVES.—

	U. S. Currency.
Bort, good drill quality, carat	\$ 85.00
Carborundum, grains	10-17
Corundum	.07-.10
Emery, grain	.035-.045
Pumice Stone, American powdered	100 lbs. 1.60-2.00

ACIDS.—

Hydrochloric 20°	lb. 1.25-1.50
Nitric, 38°	" 4.25-4.625
Sulphuric, 66° bulk	ton 18.00
Aluminum, Sulphate Com'l	lb. 1.25-1.60
Antimony, needle	" .07-.08
Arsenic, white	" 06-.07

ASPHALTUM.—

Trinidad	ton 30.00-32.50
California	" 22.50-30.00
Bleaching powder, 35%	100 lb. 1.25-1.40
Blue Vitriol	" 6.00
Bone Ash	lb. .02-.04
Borax	" .07-.08
*Caps detonating	M. 7.50

CEMENT.—

Portland, American	500 lbs. bbl. 1.55-1.60
Foreign	" " 2.25-2.90
Rosendale	300 " " 85
*Green Island	375 lb. bbl. 2.65
*Alsen	" 2.75
*Dromedary	" 2.50
*Rizal	" 2.50
*Independencia	" 2.50

CLAY, CHINA.—

American common	lg. ton 8.50-9.00
Foreign	" 11.50-17.50

COALS.—

Japanese	5.25
Australian	5.95
Copper	lb. .16-.16
*Dynamite 40%	" .20
Feldspar ground best	sh. ton. 14.00
Fire brick American	M. 30.00-40.00

Imported	"	30.00-45.00
Fire clay, St. Louis Mill	ton 2.50	
*Fuse-Blasting	1,000 it. 7.50	
Graphite-American ore, common	lb. .01-.10	
Artificial	lb. .06	
Gypsum-Fertilizer	sh. ton 7.00	
Powdered	sh. ton 12. to-20	
Lead	lb. .034-.042	
Magnesite-Greece, crude, 9% lg. ton	7.00-8.00	
Bricks, domes	per M. 160-200	
Manganese, pure, 98-99%	lb. .75	
Ore, 80-85%	sh. ton 35.00-60.00	
Mercury, export flask	75 lbs. 36.00-39.00	

PAINTS AND COLORS.—

Litharge American P'w'd	lb. .074-.075	
Ochre, Am. Com.	sh. ton 8.50-9.00	
Paris green pure, bulk	lb. .26	
Turpentine, spirits, bbl.	gal. 54-54	
White lead, Am. dry	lb. .064-.07	
Am. in Oil	" .074-.075	
Zinc, white, Am. extra dry	" .054-.055	
Phosphates, Acid	per unit .65-.67	
Florida hard rock	lg. ton 10.25-10.50	
Land pebble 68%	" 5.75-6.00	
Potassium Cyanide (98-99%)	lb. 18-.19	
Platinum	oz. 27.00-29.50	
Platinum, Scrap	oz. 20.00-21.00	
Speiter	lb. .053-.055	
Nickel	lb. .045-.065	
Cobalt unrefined	" .20-.40	
*Powder, black blasting A	lb. .15	
*Judson	" .134	
Pyrite, Domestic Non-arsenical, lump	unit 11-11	
Imported non-arsenical lump	" 14-14	
Imported, arsenical	" 13-13	
Salt peter crude	100 lbs. 4.624-4.7	
Silica, Lump quartz	lg. ton 2.50-4.00	
Ground quartz, ordinary	" 13.00-15.00	
Glass sand, ordinary	" 2.75	
Silver	oz. 61	
Sodium cyanide (100% KCN)	lb. 18-.19	
*Steel, octagon drill	lb. .14	
Sulphur, Louisiana prime	lg. ton 19.00-19.50	
Roll	100 lbs. 1.85-2.15	
Flowers sublimed	" 2.20-2.60	
Talc—Domestic	sh. ton 15.00-25.00	
Italian, best	lb. 35.00-40.00	
Tin	lb. .42	
Zinc, Dust	" .15	
*Manila quotation.	" .05-.06	

HEMP STATISTICS, 1ST FEBRUARY, 1908.

(Courtesy of C. S. NICHOLSON, Secretary Manila Chamber of Commerce.)

Arrivals of hemp at Manila up 31st January 1908	53,258 Bales.
Arrivals of hemp at Cebu up 31st January 1908	11,004 Bales.

Stocks on hand in Manila and Cebu on 1st January 1908.....

TOTAL..... 193,621 Bales.

Exports to all parts to date 31-1-08..... 65,694 Bales.

Local consumption estimated at..... 400 " 66,094 Bales

Total stocks at Manila and Cebu on 1st February, 1908..... 127,527 Bales

EXPORT OF HEMP, JANUARY, 1908.

Date	Vessel	London	L'pool	Atlantic U. S.	Pacific East California	Continent	Australia	Other Pts.	B

FAR EASTERN STOCKS AND QUOTATIONS

Courtesy of Messrs. Kadoorie & Co., Hongkong, for January, 1908.

STOCK.	WHEN ESTABLISHED	CAPITAL	NO. OF SHARES	VALUE	PAID UP	RESERVE	WORKING ACCOUNT	DATE	LAST DIVIDEND.	Approximate Yield per cent. per annum at Present Quotation.*	CLOSING QUOTATIONS.
BANKS.											
Hongkong & Shanghai Banking Corporation	1865	\$15,000,000	{ 80,000	\$125	\$125	{ g £1,000,000 s \$11,750,000 i \$250,000	\$1,797,167	30-6-07	{ £1.15/- for half year ending \$30.6.07 @ ex 2½ = \$16.04 per share	5½	{ \$710 \$705 new issue £79
do do (new)	1907		{ 40,000	\$125	\$125						
National Bank of China, Ld.	1891	£699,475	10) 99,925	£7	£6	{ c £12,735 s \$300,000	\$71,293	31-12-06	\$2 (London 3½) for 1903		\$51
Russo Chinese Bank	18	{ Rbs. 15,000,000 Tls. 2,000,000	80,000 Rbs. 187½ 16,000 Tls. 125	Rbs. 187½ Tls. 125	{ g Rbs 7,130,500 s Rbs 2,000,000 s Tls. 800,000		Rbs 41,000	31-12-06	9 per cent.		Tls. 175
MARINE INSURANCES.											
Canton Insurance Office, Ld.	1881	\$2,500,000	10,000	\$250	\$50	{ j \$1,560,000 u \$219,058 u \$401,959	Nil.	31-12-06	\$20 for 1906	8½	\$245
North China Insurance Co., Ld.	1863	£150,000	10,000	£15	£5	{ g £125,000 s Tls. 100,000 f Tls. 48,942	Tls. 204,424	30-6-07	{ Final of 7½ per share making in all 15½ for 1906 (Tls. 2.65)	6	Tls. 87½ sellers
Union Ins. Society of Canton, Ld.	1867	\$3,100,000	12,400	\$250	\$100	{ g £70,000 f \$456,407 j £125,137.15 u \$817,628 s \$850,000	\$1,460,490	31-12-06	{ Final of \$12 making \$42 for 1905, and interim of \$30 for account 1906	5	\$830
Yangtsze Ins. Association, Ld.	1862	\$1,040,000	{ 8,000	\$100	\$60	{ j \$159,143 s \$1,988	\$394,520	31-12-06	\$12 for year ending 31.12.05		\$150 \$137½
do. do. (new)	1907		{ 4,000	\$100	\$60						
FIRE INSURANCES.											
China Fire Ins. Co., Ld.	1870	\$2,000,000	20,000	\$100	\$20	{ x \$1,000,000 f \$320,449 s \$7,616	\$362,980	31-12-06	\$6 and bonus \$2 for 1905	8½	\$98 sales
Hongkong Fire Ins. Co., Ld.	1868	\$2,000,000	8,000	\$250	\$50	{ x \$1,256,483	\$435,236	31-12-06	\$40 for 1905	12	\$335
SHIPPING.											
China & Manila Steamship Co., Ld.	1882	\$750,000	1) 30,000	\$25	\$25	\$7,000	\$365	31-12-06	\$1 for 1906	6½	\$15
Douglas Steamship Co., Ld.	1883	\$1,000,900	20,000	\$50	\$50	{ z \$264,638 s \$96,988	Nil.	30-6-07	\$4 for year ended 30-6-07	10	\$40
Hongkong, Canton & Macao Steamboat Co., Ld.	1865	\$1,200,000	80,000	\$15	\$15	{ e \$250,000 d. i. \$550,000 f \$86,989	\$27,101	30-6-07	\$1 for 1st half year ending 30-6-1907	6½	\$29 sal. & b.
Indo-China Steam Navigation Co., Ld.	1882	£600,000	{ 2) 60,000	£5	£5	{ i £60,000 s £270,000	£3,694	31-12-06	{ 5½ @ ex. 2-2½ = \$2.24 per share for 1906	3½	{ \$38 \$28
Do. Do. (Preferred)			{ 2) 60,000								
Shanghai Tug & Lighter Co., Ld.	1903	Tls. 1,500,000	{ 20,000	Tls. 50	Tls. 50	Tls. 54,372	Tls. 13,327	31-12-06	Interim of Tls. 1½ for a/c 1907	12	Tls. 46 sellers
Do. Do. Preference "Shell" Transport & Trading Co., Ld.	1898	£ 2,000,000	2,000,000	£1	£1	{ i £400,000 s £1871	£172,370	31-12-06	{ Interim of 1½ (Coupon No. 8) for a/c 1907	11	Tls. 50 sellers
"Star" Ferry Co., Ld.	1898	{ \$200,000	{ 10,000	\$10	\$10	{ i \$65,000 s \$32,957	\$137	30-4-07	{ \$1.00 50 cts. for year ended 30-4-07	4½	\$24 buyers
	1900		{ 10,000	\$10	\$5	{ i \$32,957				4½	\$12 buyers
Taku Tug & Lighter Co., Ld.		Tls. 1,500,000	12) 30,000	Tls. 50	Tls. 50	{ d Tls. 419,479 e Tls. 62,000 i Tls. 81,200 q Tls. 30,000	Tls. 18,730	31-12-06	Final of Tls. 2 making Tls. 6 for 1906	12½	Tls. 47 sellers
REFINERIES.											
China Sugar Refining Co., Ld.	1878	\$2,000,000	20,000	\$100	\$100	{ o \$345,741 e \$450,000	\$9,218	31-12-06	\$8 for year ending 31-12-06	7½	\$109 buyers
Luzon Sugar Refining Co., Ld.	1882	\$700,000	7,000	\$100	\$100	{ r \$56,848	Dr. \$138,523	31-12-06	\$3 for 1897		
Perak Sugar Cultivation Co., Ld.	1882	Tls. 350,000	7,000	Tls. 50	Tls. 50	none	Tls. 8,935	31-8-06	Tls. 4. (8%) for year ending 31-8-06	5	Tls. 80 buyers
MINING.											
Chinese Engineering & Mining Co., Ld.	1901	£1,000,000	1,000,000	£1	£1	{ d £150,000 h £54,390	£11,556	28-2-07	{ Final of 1½ - Making 3/- for 1907 (Coupon No. 9)	7½	Tls. 15 20 buyers
Raub Australian Gold Mining Co., Ld.	1892	£200,000	{ 150,000	£1	18-10 £1	{ s £4,873	Dr. £11,358	31-3-07	No. 12 of 1½ = 48 cents		\$8
DOCKS, WHARVES AND GODOWNS.											
Fenwick (Geo.) & Co., Ld.	1889	\$450,000	18,000	\$25	\$25	\$64,124	\$10,335	31-12-06	\$1½ for year ending 31-12-06	11½	\$15
Hongkong & Kowloon Wharf & Godown Co., Ld.	1886	{ \$3,000,000	{ 40,000	\$50	\$50	{ t \$550,000 s \$23,152	\$3,047	31-12-06	{ Interim of \$2 for six months ending June 30th 1907	6½	{ \$55 old \$53 new
do. do. new	1907		{ 20,000	\$50	\$50	{ i \$30,000					
Hongkong & Whampoa Dock Co., Ld.	1866	\$2,500,000	50,000	\$50	\$50	{ v \$50,000 s \$100,000	\$491,580	30-6-07	{ \$4 for half year ending June 30th, 1907	8½	\$98
Shanghai Dock & Engin'g Co., Ld.	1906	Tls. 5,570,000	13) 55,700	Tls. 100	Tls. 100	Tls. 1,000,000	Tls. 10,459	30-4-07	Int. of Tls. 2½ for 6 months ending 31-10-1907		
Shanghai & Hongkew Wharf Co., Ld.	1902	Tls. 3,600,000	14) 36,000	Tls. 100	Tls. 100	{ b Tls. 487,210 r Tls. 100,000 p Tls. 190,100 e Tls. 75,000	Tls. 23,117	31-12-06	Interim of Tls. 8 for a/c 1907	4	Tls. 78 buyers
										8½	Tls. 212 sales
LANDS, HOTELS AND BUILDINGS											
Anglo-French Land Investment Co., Ld.	1906	Tls. 2,500,000	3) 25,000	Tls. 100	Tls. 100	Tls. 15,000	Tls. 3,388	28-2-07	{ Tls. 6 for 14½ months ending 28-2-07	6	Tls. 105
Astor House Hotel Co., Ld.	1901	\$750,000	4) 30,000	\$25	\$25	\$30,000	\$10,908	30-6-07	{ \$2½ for year ending 30-6-07	11½	\$20 sellers
Astor House Hotel, Ld. (Tientsin)	...	Tls. 200,000	4,000	Tls. 50	Tls. 50	{ e Tls. 10,000	Tls. 1,013	28-2-06	20 per cent. for 1906		Tls. 70 sellers
Central Stores, Ld.	...	\$751,845	16) 50,123	\$15	\$15	{ n \$1,000	\$9,178	31-12-06	\$1.80 for 1906	13	\$14 buyers
Hongkong Hotel Co., Ld.	1866	\$600,000	12,000	\$50	\$50	{ r \$648,975 s \$36,075	\$10,925	31-6-07	\$4 for 1st half-year ending 30-6-1907		
Hongkong Land Investment & Agency Co., Ld.	1889	\$5,000,000	50,000	\$100	\$100	e \$250,000	\$36,915	31-12-07	{ Final of \$3½ making \$7 for year ending 31-12-07	7½	\$104 buyers
										7	\$102½ ex div.
Humphrey's Estate & Finance Co., Ld.	1887	\$1,500,000	150,000	\$10	\$10	{ i \$217,426 e \$50,000	\$4,621	31-12-07	70 cents for 1907	7½	\$10 ex div.

FAR EASTERN STOCKS AND QUOTATIONS—(CONTINUED.)

STOCKS	WHEN ESTABLISHED	CAPITAL	NO. OF SHARES	VALUE	PAID UP	RESERVE	WORKING ACCOUNT	DATE	LAST DIVIDEND	Approximate Yield per cent. per annum at Present Quotation.*	CLOSING QUOTATIONS
Kowloon Land & Bldg. Co., Ltd.	1889	\$300,000	6,000	\$50	\$30	none	\$1089	31-12-06	\$2½ for 1906	7	\$35 sellers
Shanghai Land Investment Co., Ltd.	1888	Tls. 3,900,000	78,000	Tls. 50	Tls. 50	{ Tls. 869,493 e Tls. 170,000 }	Tls. 61,978	31-12-06	{ Interim div. of Tls. 3 per share for 1907 }	7	Tls. 107 sales
Tientsin Land Investment Co., Ltd.	1902	Tls. 772,600	7,726	Tls. 100	Tls. 100	i Tls. 71,685	Tls. 1,973	31-12-06	Final of Tls. 5 making Tls. 8 for 1906	—	Tls. 100 buyers
West Point Bldg. Co., Ltd.	1889	\$625,000	12,500	\$50	\$50	none	\$1,541	31-12-07	{ Final of \$2.10 making in all \$4.10 for year endg. 31-12-07 }	8½	\$48 ex div.
COTTON MILLS.											
Ewo Cotton Spinning & Weaving Co., Ltd.	1895	Tls. 1,000,000	5) 20,000	Tls. 50	Tls. 50	{ Tls. 150,000 Tls. 23,276 }	Tls. 8,807	31-10-07	Tls. 2½ for year ended 31-10-07	4½	Tls. 56 sales
Hongkong Cotton Spinning, Weaving & Dyeing Co., Ltd.	1901	\$1,250,000	125,000	\$10	\$10	e \$60,000	\$14,269	31-7-07	50 cents for year ending 31-7-07	5	\$10
International Cotton Manufacturing Co., Ltd.	1895	Tls. 750,000	6) 10,000	Tls. 75	Tls. 75	Tls. 150,000	Tls. 85,519	30-9-07	Tls. 6 for year end. 30-9-06 (8%).	—	Tls. 55 sales
Laou-kung-mow Cotton Spinning & Weaving Co., Ltd.	1895	Tls. 800,000	7) 8,000	Tls. 100	Tls. 100	none	Tls. 31,469	31-12-06	Tls. 8 for 1906	—	Tls. 73 sellers
Soy Chee Cotton Spinning Co., Ltd.	1895	Tls. 1,000,000	2,000	Tls. 500	Tls. 500	l Tls. 28,257	Tls. 50,663	31-12-06	Tls. 50 for 1906	—	Tls. 270 buyers
MISCELLANEOUS.											
Bell's Asbestos Eastern Agency, Ltd.	1895	£5,377.10s	11) 8,604	12-6	12-6	£1,299	£638	31-12-06	1s. 8d. for 1906	9	£7½
Campbell, Moore & Co., Ltd.	1886	\$12,000	1,200	\$10	\$10	\$9,000	\$653	31-12-06	\$3 for 1905	—	\$10 buyers
China-Borneo Co., Ltd.	1903	\$720,000	8) 60,000	\$12	\$12	none	Nil.	31-12-06	\$1 for 1904	—	\$10½
China Flour Mill Co., Ltd.	—	Tls. 200,000	4,000	Tls. 50	Tls. 50	Tls. 50,000	Tls. 889	31-12-05	Final of Tls. 5 making Tls. 10 for 1905	—	Tls. 58 sellers
China Light & Power Co., Ltd.	1901	{ \$550,000	{ 50,000	\$10	\$10	none	\$25,000	28-2-07	60 cents for year ending 28-2-06	—	\$6
Do. do. Special Shares	1907	{ 17) 50,000	{ 17) 50,000	\$1	\$1	—	—	—	—	9½	£8½ sales
China Provident Loan & Mortgage Co., Ltd.	1898	a \$1,250,000	19) 125,000	\$10	\$10	\$120,000	\$3,593	31-12-07	80 cents on 100,000 shares for 1907	9½	£8½ sales
Dairy Farm Co., Ltd.	1896	\$187,500	25,000	\$7½	\$6	i { \$60,000	\$2,974	31-7-07	\$1.30 for year ending 31-7-07	7½	£17
Green Island Cement Co., Ltd.	1889	\$4,000,000	400,000	\$10	\$10	{ \$5,000	\$10,804	31-12-06	{ Interim div. of 50 cents per share for 1907	8½	£11½
Hall & Holtz, Ltd.	—	\$420,000	21,000	\$20	\$20	\$11,000	\$15,002	28-2-07	\$2½ for year ending 28-2-07	11½	£21 buyers
Hongkong Electric Co., Ltd.	1889	\$600,000	60,000	\$10	\$10	none	\$2,953	28-2-07	\$1.00 for year ending 28-2-07	6½	£15
Hongkong Ice Co., Ltd.	1881	\$125,000	5,000	\$25	\$25	k \$105,000	\$4,361	31-12-06	{ Interim of \$4 for half year end. June 30th 1907	9½	£240
Hongkong Rope Manufacturing Co., Ltd.	1883	\$500,000	50,000	\$10	\$10	\$65,000	\$4,212	31-12-06	Interim of 80 cents per share for 1907	8	£25
Maatschappij tot Mijn-, Bosch- en Landbouwexploitatie in Langkat	1902	Gs. 2,500,000	25,000	Glds. 100	Glds. 100	{ Tls. 547,500 i Tls. 27,603 }	Tls. 10,374	31-10-05	{ Final of Tls. 7½ & bonus of Tls. 2½ making in all Tls. 32½ for 1907	8	Tls. 410 buyers
Peak Tramways Co., Ltd. (New)	1907	\$750,000	25,000	\$10	\$10	none	\$2,655	30-4-07	{ \$1 per share for period from 19th Oct. to 30th April, 1907	8	£13
Philippine Co., Ltd.	1904	\$675,000	67,500	\$10	\$10	none	Dr. P. 34,324	31-12-05	None	—	£6 buyers
Shanghai Gas Co., Ltd.	1903	Tls. 800,000	24,000	Tls. 50	Tls. 50	d Tls. 100,000	Tls. 7,990	31-12-06	Interim of Tls. 3½ for a/c 1907	7½	Tls. 108 buyers
Shanghai Horse Bazaar Co., Ltd.	1904	Tls. 270,000	5,400	Tls. 50	Tls. 50	Tls. 67,323	Tls. 9,751	31-12-05	Tls. 4 for 1905	—	Tls. 45 buyers
Shanghai Pulp & Paper Co., Ltd.	—	Tls. 450,000	4,500	Tls. 100	Tls. 100	e Tls. 45,000 Tls. 8,000	Tls. 3,354	31-12-06	Final of Tls. 5 making Tls. 10 for 1906	—	Tls. 65 buyers
Shanghai-Sumatra Tobacco Co., Ltd.	1902	Tls. 600,000	9) 30,000	Tls. 20	Tls. 20	{ Tls. 24,820 u Tls. 50,000 }	Tls. 7,843	31-10-06	Interim of Tls. 5 (25%) account 1907	8	Tls. 124 sales
Shanghai Waterworks Co., Ltd.	1881	£327,000	16,350	£20	£20	Tls. 190,000	Tls. 85,592	31-12-05	{ Interim of 15½ for 1907 (old) Interim of 11½ for 1907 (n.)	—	Tls. 350 buyers
South China Morning Post, Ltd.	1903	\$150,000	6,000	\$25	\$25	none	Dr. \$41,934	28-2-06	None	—	£20 sales
Steam Laundry Co., Ltd.	1902	\$100,000	20,000	\$5	\$5	none	78	31-5-07	40 cents for year ending 30-5-07	6½	£6 sellers
Tientsin Waterworks Co., Ltd.	1901	Tls. 200,000	2,000	Tls. 100	Tls. 100	{ Tls. 15,259 e Tls. 4,000 }	Tls. 201	30-4-07	Tls. 6½ for year ending 30-4-07	—	Tls. 97
Union Waterboat Co., Ltd.	1905	\$500,000	15) 50,000	\$10	\$10	none	\$349	31-12-06	First year 80 cts. on 9,900 ord. shares & \$19.80 on 100 founder shares for year ending 31-5-07	—	£11
United Asbestos Oriental Agency, Ltd.	1896	\$100,000	10,000	\$10	\$4	\$35,000	\$13,000	31-5-07	8 \$10	—	
Watson (A. S.) & Co., Ltd.	1886	\$900,000	90,000	\$10	\$10	{ \$300,000 \$25,000 }	\$5,482	31-12-06	Interim of 30 cts. for 1907	6½	£10½ buyers
Weismann Limited	1904	\$17,500	175	\$100	\$100	\$6,700	\$13	31-7-07	10 per cent. for year endg. 31-7-07	—	£130 buyers
William Powell, Ltd.	1901	\$150,000	15,000	\$10	\$10	none	\$41	30-6-07	{ Final of 30 cents making 80 cents for year ending June 30th 1906 }	—	£5½ buyers

LOANS AND DEBENTURES.	AGENTS FOR THE LOAN.	AMOUNT OF LOAN.	PAR VALUE	OUTSTANDING BONDS.	WHEN PAYABLE.	CLOSING QUOTATIONS.
China Government, 7 per cent. Silver Loan 1886 E	Hongkong & Shanghai Banking Corporation.	Tls. 767,200	Tls. 250	1914	Mar. 31st and Sept. 30th each year until Mar. 31st, 1917	par.
Hongkong Hotel Company, Ltd., 6 per cent. Mortgage Debentures of 1899 £	Hongkong & Shanghai Banking Corporation.	\$500,000	\$500	§ all	Half yearly, June 30th and December 31st	par.
Shanghai & Hongkew Wharf Company, Ltd., 6 per cent. Debentures of 1902	Hongkong & Shanghai Banking Corporation.	Tls. 543,900	Tls. 100	—	Half yearly, June 30th and December 31st	Tls. 99
Astor House Hotel Company, Ltd., 8 per cent. Debentures of 1903	—	Tls. 500,000	Tls. 100	—	Half yearly, January 1st and July 1st	Tls. 105
Chinese Engineering & Mining Co., Ltd., 6 per cent. Debentures of 1903	—	£500,000	¶	—	Half yearly, June 30th and December 31st	par.
International Cotton Manufacturing Co., Ltd., 7% Debentures of 1901	Russo Chinese Bank	Tls. 500,000	Tls. 100		Half yearly, March 31st and Sept. 30th	Tls. 97½.
China Light and Power Co., Ltd. 6% Debentures of 1907 ***	—	\$500,000	\$100	—	Half yearly, June 30th and December 31st	par.

a Authorized capital \$2,000,000.
b Building Reserve Account.
c Capital Reserve Fund.
d Depreciation Fund.
e Equalization of Dividend Fund.
f Exchange and Investment Fluctuation Account.
g Gold Reserve Fund.
h Exchange Reserve Account.
i Insurance Fund.
j Reinsurance Fund.
k Contingencies Account.
l Legal Reserve Fund.
m Authorized Capital
n Sinking Fund.

o Raw Sugar Reserve Account.
p Premium on New Issue.
q Boiler Repairs and Renewals Account.
r Repairs and Renewals Account.
s Silver Reserve Fund.
t Depreciation and Repairs Account.
u Underwriting Suspense Account.
v Special account.
w Special Works Fund.
x Extra Reserve Fund.
y 72,560 owned by the Company.
z 7,200 shares unissued.
1 5,725 shares unissued.
2 First issue of 60,000 of which 10,411 unallotted.

3 5,000 shares unissued.
4 4,480 shares unissued.
5 5,000 shares unallotted.
6 1,616 shares unallotted.
7 842 shares unissued.
8 14,00

SINGAPORE SHARE QUOTATIONS

(COURTESY MESSRS. FRASER & CO., BROKERS, SINGAPORE, DECEMBER, 1907)

Date of Formation	Capital	Capital paid up	No. of Shares Issued	Issue Value	Paid up	Reserve	Last Dividend	Name	Buyers	Sellers	Closing Quotations
1903	\$300,000	300,000	30,000	10	10		25% for year ending 31-3-07	MINING			
1907	\$300,000	225,000	22,500 ^{z*}	10	10		20% for year ending 30-4-07	Belat Tin Mining Co., Ltd.	8.75	9.00	\$ 8.75
1901	\$600,000	600,000	60,000	10	10		3/- during 1906	Bruang Ltd.	7.00	7.50	7.00
1903	£400,000	350,000	350,000 ^a	1	1		1/- interim during 1907	Bruseh Hydraulic Tin Mining Co., Ltd.	14.50	15.00	14.50
1905	£30,000	30,000	30,000	1	1		25% interim for 1907	Duff Development Co., Ltd.	1.65	1.75	1.65
1907	£400,000	375,000	37,500 ^b	10	10			Jeher Hydraulic Tin Mine, Ltd.			5.00
1901	£60,000	60,000	60,000	£1	£1			Kanaboi, Ltd.			7.50
1906	£100,000	100,000	100,000	£1	£1	6,000		Kinta Tin Mines, Ltd.	10.75	11.00	10.75
1905	£150,000	99,000	9,900 ^c	10	10			Kledang Tin Mining Co., Ltd.	7.00	7.50	7.00
1906	£120,000	120,000	120,000	1	1			Kuantan Tin Mining Co., Ltd.	14.00	14.50	14.00
1906	£30,000	30,000	30,000	£1	£1			Lahat Mines Ltd.	8.00	8.50	8.00
1906	£450,000	337,500	45,000	10	7.50			Malaya and Siam Corporation, Ltd.		£1.00	£1 0s. 0d.
1906	£250,000	179,500	600,000 ^h	5s-	5s-			Malacca Tin Dredging Co., Ltd.		7.50	7.50
1904	£120,000	100,000	100,000 ^d	1	1	£6,000		Pahang Consolidated Co., Ltd.	29/-	29/-	29/- nominal.
1905	£27,000	21,750	21,750 ^e	1	1			Pusing Lama Tin Mines, Ltd.	10.00	10.25	10.00
1892	£200,000	191,250	50,000	1	1	4,873		Rambutan, Ltd.	11.00	11.25	11.25
1905	£40,000	40,000	40,000	1	1			Raub Aust. Gold Min. Co., Ltd. <i>Fully pd.</i>	6.25	6.50	6.25
1898	2,500,000	2,500,000	25,000	100	100			<i>Contributory</i>	6.25	6.50	6.25
1900	\$110,000	110,000	22,000	5	5			Redhills Tin Mining Co., Ltd.			12.50
1907	\$500,000	\$500,000	\$50,000	10	\$7.50			Redjang Lebong Mining Co.			645.00
1907	£80,000	80,000	80,000	1	1			Royal Johore Tin Mining Co., Ltd.		1.50	1.50
1906	£850,000	850,000	85,000	10	10			Salak South, Ltd.	6.00	6.25	6.00
1899	£230,000	230,000	23,000	10	10			Sempam Tin Mines, Ltd.		7.50	7.50
1907	£90,000	70,000	70,000 ^{a*}	£1	£1			Serendah Hydraulic Tin Min. Co., Ltd.	11.00	11.25	11.00
1902	£160,000	149,185	149,185 ^f	1	1			Sipiau Tin Co., Ltd.	5.50	5.75	5.50
1907	£60,000	60,000	600	100	100			Tekka, Limited.	9.50	9.75	9.50
								Tronoh Mines, Ltd.	13.75	14.00	13.75
								Tunggal Tin, Ltd.	20.00	25.00	25.00
1905	£150,000	£116,625	46,500 ^g	1	1		10% interim for 1907	RUBBER			
1905	£200,000	105,000	93,500	1	15/-		12½% interim for 1907	Anglo-Malay Rub. Co., Ltd. <i>Fully pd.</i>	4.00	4.76	£4 7s. 6d.
1904	£30,000	15,250	7,000 ⁱ	1	1			<i>Contributory</i>	2.12.6		£3 7s. 6d.
1903	£70,000	61,000	11,000	1	15/-			Balgownie Rub. Estate Ltd. <i>Fully pd.</i>		21.00	21.00
1906	£150,000	125,000	61,000 ^j	10	10			Batu Caves Rub. Co., Ltd. <i>Fully pd.</i>			£5 0s. 0d.
1904	£12,000	10,500	6,000	1	1			<i>Contributory</i>			£4. 2s. 6d.
1905	£75,000	55,000	55,000 ^l	1	1		10% for year ending 31-12-06	Bukit Rajah Rubber Co., Ltd.			£4. 12s. 6d.
1906	£310,000	243,227	181,454 ^m	1	1		5% interim for 1907	Castlewood Rubber Co., Ltd.			£11.25
1906	£180,000	£180,000	123,546	1	10/-		3% for 1906	Cicely Rubber Estates Co., Ltd.	5.00	5.10.0	£5. 10s. 0d.
1907	£320,000	201,500	184,000 ^{e*}	£1	£1			Consolidated Malay Rub. Estates, Ltd.	2.10.0	2.17.6	£6 7s. 6d.
1906	£175,000	£146,250	80	£.250	250			Highlands & Lowds. Para Rub. Co., Ltd. <i>Fully paid</i>			£2 17s. 6d.
1906	£250,000	225,000	22,500 ⁿ	10	10			" " " " <i>Contributory</i>		1.19.0	£1 19s. 0d.
1895	£100,000	76,100	900,000 ^{f*}	2f-	2f-			Kuala Lumpur Rubber Co., Ltd.		1.76	£1 7s. 6d.
1906	£300,000	260,625	115,000	1	1			Lanadron Rubber Estates, Ltd.		1.6.0	£1 6s. 0d.
1903	£30,000	20,000	20,000 ^o	1	1		10% interim for 1907	Langen Rub. and Cocoanut Co., Ltd. <i>Deferred</i>		13/6	nominal
1906	£250,000	225,000	22,500 [*]	10	10			Ledbury Rubber Co., Ltd.		£300.	£210.00
1904	£20,000	8,794	2,588 ^{b*}	1	1			Linggi Plantations Ltd. <i>Ordinary</i>			£250.
1904	£100,000	100,000	12,412	1	10/-			Malacca Rubber Plantations 7½% <i>Pref.</i>	9/6	9/6	£14.50
1906	£263,000	263,000	1,000	100	100			" " " " <i>Ordinary Fully paid</i>	1.0.0	1.0.6	£1 0s. 0d.
1903	£250,000	250,000	37,000	2/-	2/-			Malacca Rubber Plantations 7½% <i>Pref.</i>	16/6	17/-	17/- nominal
1905	£100,000	100,000	2,500	100	100			Pataling Rubber Estates Synd. Ltd.			nominal.
1906	£100,000	93,375	73,500	£1	£1			Ragalla Rubber Co., Ltd.		11.25	£11.25
1904	£50,000	28,795	26,500	£1	15/-			Sagga Company Limited.			£2. 10s. 0d.
1904	£60,000	50,000	6,920 ^p	1	1			Sandycroft Rubber Co., Ltd.	310.00	330.00	£330.00
			35,000	1	12/-			Selangor Rubber Co., Ltd.	16/-		16/-
1898	£30,000	28,150	260,000 ^q	2/-	2/-		25% interim for 1907	Sing. & Johore Rub. Co., Ltd. <i>Fully paid</i>			nominal.
1903	£250,000	250,000	37,000	2/-	1/-			Sione Rubber Co., Ltd.	182.50		£182.50
1905	£100,000	100,000	10,000	10	10		7½% for year ending 30/6/07	Sungei Kapar Rubber Co., Ltd.	14.75		£14.75
1906	£100,000	93,375	73,500	£1	£1			Sungei Way (Selangor) Rub. Co., Ltd. <i>Contributory</i>			nominal.
1904	£50,000	28,795	35,000	1	12/-		55% for 1906	Vallambrosa Rubber Co., Ltd.	1.10.0	14/-	£1. 10s. 0d.
1894	£5,377.10.0	£4,805	7,688 ^{d*}	12/6	12/6	£1,300	10% for year ending 31-12-06	GENERAL			
1898	£225,000	225,000	4,500	50	50	112,500	15% & 2½% bon. for yr. end. 31-12-06.	Bells Asbestos Eastern Agency, Ltd.	5.00	6.75	£6.75
1865	£15,000,000	15,000,000	80,000	125	125	£1,500,000 ^u	Fraser & Neave, Ltd.	140.00	145.00	145.00	
			40,000	125	125	£2.0s. 0d. for ½ year ending 31-12-07	Hongkong & Shanghai Bankg Corptn.			675.00	
						£110s 0d for ½ year ending 31-12-07			670.00		
1905	£2,400,000</										

YOKOHAMA SHARE QUOTATIONS

COURTESY A. C. HUTTON POTTS, SHARE AND GENERAL BROKER, YOKOHAMA, JANUARY, 1908

STOCKS	CAPITAL.	NO. OF SHARES	ISSUE VALUE	AMOUNT PAID UP	RESERVE FUND	AT WORKING ACCOUNT OR CARRIED FORWARD	DATE	LAST DIVIDEND	FOR TERM	CLOSING QUOTATION
Brett & Co., Ltd.	-Y- 28,000	2800	-Y- 10	-Y- 10			31-12-06	8%	for 1 year	10 Sellers.
Club Hotel, Ltd.	185,000	1850	100	100	3,000	-Y- 943.52	31-3-07	10%	for $\frac{1}{2}$ year	80 Sellers.
Grand Hotel, Ltd.	500,000	5000	100	100	5,000	-Y- 23,011.87	30-6-07	6%	for $\frac{1}{2}$ year	140 Sellers.
Helm Bros., Ltd.	186,000	3720	50	50	22,500	-Y- 2,916.83	31-12-06	20%	for 1 year	80 Sellers.
Langfeldt & Co., Ltd.	150,000	1500	100	100		Dr. 20,304.15	31-12-06		for $\frac{1}{2}$ year	45 Sales.
C. Nickel & Co., Ltd.	500,000	20000	25	25		1,470.97	31-10-06	16%	for 1 year	41 $\frac{1}{2}$ Sales.
Yokohama Engine and Iron Works	*	500,000	10000	50	50	-Y- 12,477.04	31-5-07	10%	for $\frac{1}{2}$ year	85 Sellers.
Oriental Hotel, Ltd., Ordinary		3000	50	50			31-8-06	15%	for 1 year	50 Nominal.
Oriental Hotel Ltd., Preference		250,000	50	50	62,285.42				8%	for 1 year
The Union Estate and Investment Co., Ltd.	†	1,000,000	10000	100						50 Nominal.
										105 Sales.

† 285,000 unissued.

*-Y- 390,000 issued.

‡ 475,000 unissued.

110,000 unissued.

DEBENTURE LOANS	AMOUNT OF LOAN.	FACE VALUE OF DEBENTURES.	RATE OF INTEREST.	INTEREST PAYABLE.	CLOSING QUOTATION.
Brett & Company, Limited.	11,500.00	100.00	7%	1 June and 1 Dec.	95 Sales.
Yokohama United Club.	250,000.00	100.00	7%	30 June and 31 Dec.	105 Sales.
C Nickel & Company, Limited.	50,000.00	100.00	8%	1 May and 1 Nov.	110 Sellers.
Oriental Hotel, Limited.	250,000.00	100.00	8%	1 April and 1 Oct.	100 Sellers.
Union Estate and Investment Co., Limited.	250,000.00	100.00	6%	30 June and 31 Dec.	100 Sellers.

JAPANESE STOCKS.	FACE VALUE.	AMOUNT PAID UP.	DIVIDEND PER ANNUM.	DIVIDEND PAYABLE.	CLOSING QUOTATION.
Exchequer Bonds 1st issue.	-Y-100	-Y-100	5%	June and Dec.	-Y- 96.50
Exchequer Bonds 2nd issue.	100	100	5%	March and Sept.	" 92.70
Exchequer Bonds 3rd issue.	100	100	5%	March and Sept.	" 92.70
Consolidated Bonds (Seiri).	100	100	5%	June and Dec.	" 84.00
War Bonds (Gunji).	100	100	5%	June and Dec.	" 84.00
Imperial 5% Bonds (Goburi).	100	100	5%	March and Sept.	" 83.00
Imperial Government 5% Bonds (issued 1906).	100	100	5%	June and Dec.	" 83.80
Kobe Water Works Bonds.	100	100	6%	June and Dec.	" 94.50
Osaka Harbour Bonds.	100	100	6%	June and Dec.	" 94.00
Osaka City Public Loan Bonds.	100	100	6%	June and Dec.	" 94.00
Yokohama Water Works Bonds.	100	100	6%	June and Dec.	" 96.50
Yokohama City Public Loan Bonds.	100	100	6%	March and Sept.	" 97.00
Sanyo Railway Company Debentures (2nd issue).	100	100	6%	April and Oct.	" 96.00
Tokyo Stock Exchange Company.	50	50	11%	June and Dec.	" 105.50
Hokkaido Colliery (Tanko) Steamship Company, Limited.	50	50	14%	July and Jan.	" 89.10
Hoden Petroleum Company, Limited.	50	50	36%	April and Oct.	" 130.00
Yokohama Electric Tramway Company, Limited.	50	50	6%	July and Jan.	" 41.50
Tokyo Railway Company Limited.	50	50	8%	June and Dec.	" 62.80
Keihin Electric Railway Company, Limited.	50	50	13%	June and Dec.	" 70.00
Imperial Hemp Weaving Company, Limited.	50	50	13%	July and Jan.	" 55.00
Kanegafuchi Cotton Spinning Company, Limited.	50	50	20%	July and Jan.	" 84.50
Tokyo Cotton Spinning Company, Limited.	50	50	20%	July and Jan.	" 60.00
Fuji Gassed-Yarn Company, Limited.	50	50	25%	July and Jan.	" 82.30
Nisshin Cotton Spinning Company, Limited.	50	12½	—		" 9.55
Fuji Paper Mill Company, Limited.	50	50	10%	June and Dec.	" 45.50
Yokohama Dock Company, Limited.	50	33	10%	June and Dec.	" 57.50
Tokyo Rope Manufacturing Company, Limited.	50	50	20%	June and Dec.	" 93.00
Nippon Sugar Refinery Co., Ltd. (Tokyo).	50	50	17½%	May and Nov.	" 88.20
Dai Nippon Beer Brewery Company, Limited.	50	50	15%	July and Jan.	" 86.95
Tokyo Gas Company, Limited.	50	50	15%	July and Jan.	" 85.40
Kirin Brewery Company, Limited.	50	50	8%	July and Jan.	" 67.00
Tokyo Electric Light Company, Limited.	50	50	10%	June and Dec.	" 69.50
Yokohama Electric Light Company, Limited.	50	50	15%	July and Jan.	" 71.50
Osaka Electric Light Company, Limited.	50	50	15%	July and Jan.	" 94.50
Kobe Electric Light Company, Limited.	50	50	14%	July and Jan.	" 92.00

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